JUL 22 1933

PAPER TRADE JOURNAL

Vol. XCVII JULY 20, 1933 No. 3

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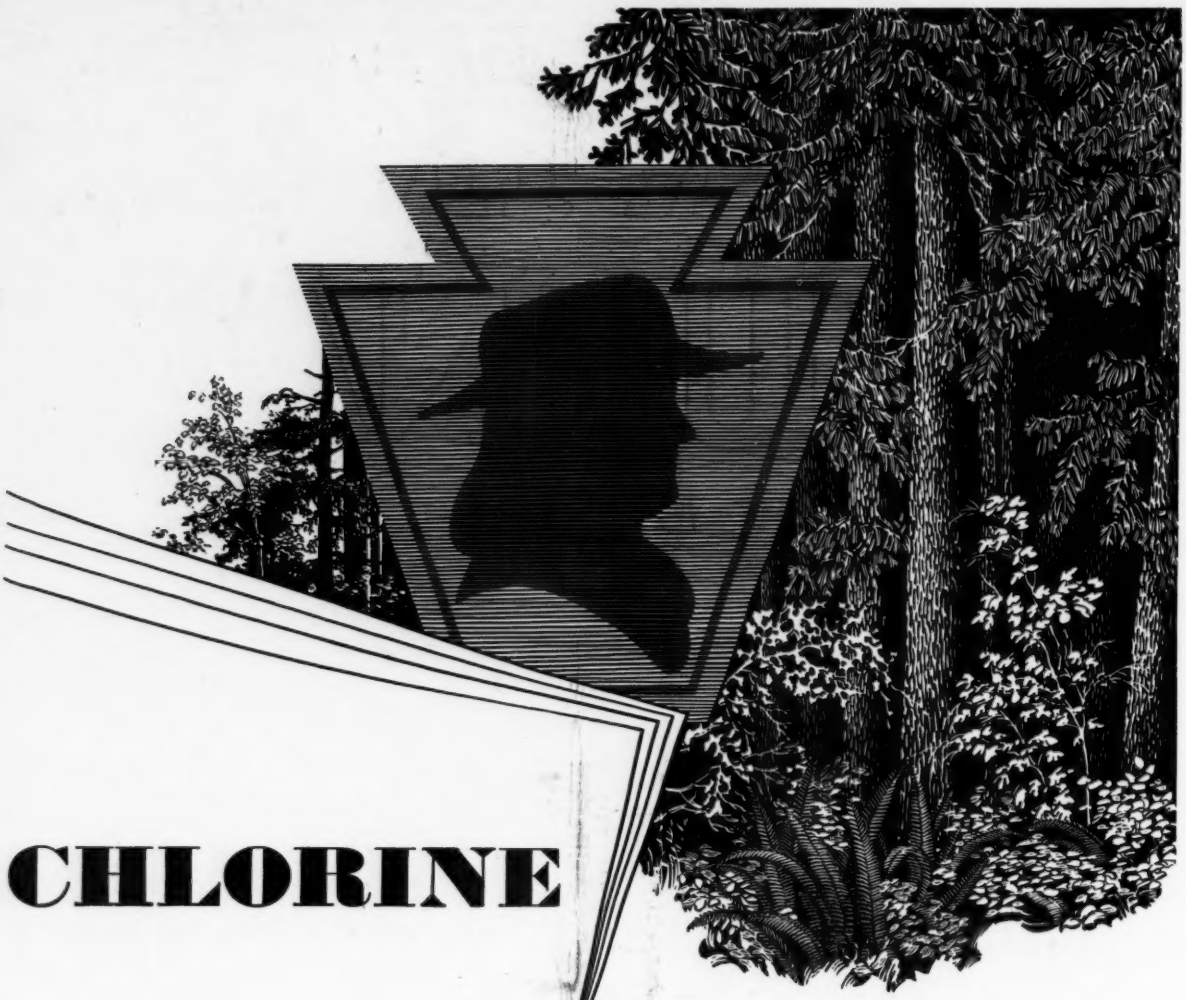

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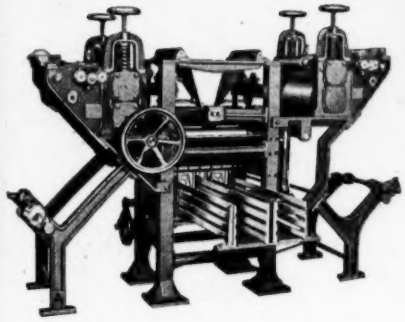

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PAPER TRADE JOURNAL

ESTABLISHED 1872

SIXTY-SECOND YEAR

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY AND THE PIONEER PUBLICATION IN ITS FIELD

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New York

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PAPER TRADE JOURNAL

With Which Is Combined

PAPER

Vol. XCVII, No. 3 Thursday, July 20, 1933

U. S. Newsprint Manufacturers Submit Code

Association of Newsprint Manufacturers of the United States, Recently Formed, Sends Code of Fair Competition Under the National Industrial Recovery Act to General Johnson at Washington—Measure Provides for Maximum 48 Hour Week and Minimum Wage of 35 Cents for Males and 27 Cents for Females

The following Code of Fair Competition and Appendices were submitted early this week to General Hugh S. Johnson, Federal Recovery Administrator, at Washington, D. C., under the terms of the National Industrial Recovery Act by the Association of Newsprint Manufacturers of the United States, which organization was recently formed:

Definitions

1. The National Industrial Recovery Act, when referred to in this document, shall be called The Act.

The Association of Newsprint Manufacturers of the United States, when referred to in this document, shall be called the Association.

The word Newsprint, when used in this document, shall mean paper as defined in Appendix C.

Purpose

2. The purpose of this Code is to effectuate the policy of The Act; to improve labor conditions and to increase employment; to establish minimum fair market prices for newsprint paper; to eliminate unfair competitive practices among the United States mills and to protect the United States industry against the sale of newsprint in the United States market by foreign manufacturers at such prices or on such terms or under such conditions as tend to destroy the industry in the United States or impair the standard of living among workers in the newsprint mills of our country.

By-Laws

3. The Association has adopted Articles of Organization and By-Laws, a copy of which is attached, marked Appendix A.

Membership

4. The Association will welcome as members all companies manufacturing newsprint in this country who will subscribe to the Articles of Organization and By-Laws and pay their proportionate expenses of the Association.

Code Modification

5. This Code, and any agreement made thereunder, or any license approved, prescribed, or connected therewith, is subject to cancellation or modification by The President of the United States, in accordance with the provisions of Section 10 (b) of The Act. Subject to the approval of The President, the Code may be amended by a vote of a majority of the membership representing two-thirds of the membership tonnage.

Labor

6. The following provisions shall apply in respect to the manufacture of newsprint in the United States:

That employees shall have the right to organize and bargain collectively through representatives of their own choosing, and shall be free from the interference, restraint, or coercion of employers of labor, or their agents, in the designation of such representatives or in self-organization or in other concerted activities for the purposes of collective bargaining or other mutual aid or protection.

That no employee and no one seeking employment shall be required as a condition of employment to join any company union or to refrain from joining, organizing, or assisting a labor organization of his own choosing.

That employers shall comply with the maximum hours of labor, minimum rates of pay, and other conditions of employment, approved or prescribed by the President.

Statistics

7. It shall be the duty of each person engaged in the Industry to furnish to the Association such data as may be required as herein provided and failure to furnish the required data, or the furnishing of false or misleading information, or the making of false statements relating thereto, shall be regarded as a violation of this Code of fair competition.

It shall be the duty of each person engaged in the Industry to furnish to the Association such current information concerning wage rates, hours of work, stocks on hand, sales, and prices as may be required to enable the Association, or any agency acting on behalf of the Association, to determine conditions within the Industry.

Unfair Practices

8. The Association recognizes that it is an unfair method of competition for any manufacturer to sell below the cost of production, but the United States newsprint industry, as a whole, is selling its product below the cost of production, and to correct this condition, and at the same time

(Continued on page 22)

Many Paper Mills Advance Employees Wages

Rises of From 10 to 11 Per Cent Announced—Administration's Efforts to Accomplish Industrial Recovery Being Loyally Supported by Paper Manufacturers—Number of Workers Greatly Augmented Following Increased Consumption and Production

In keeping with the general improvement in business experienced throughout the United States, due to the Administration's efforts to accomplish industrial recovery, reports from all divisions of the paper industry are exceptionally favorable.

Increased production and consumption has resulted in greatly increased employment at the mills, while dispatches received from different sections of the country announce wage increases by representative paper concerns, including the following:

Oxford Paper Company, S. D. Warren Company, Bedford Pulp and Paper Company, Kieckhefer Container Company and the Sabin Robbins Paper Company:

Kieckhefer Container Co.

Reports from the paper board industry indicate a highly favorable condition. A statement given out by John Kieckhefer, president of the Kieckhefer Container Company, Milwaukee, Wis., declares that the entire paper board industry of the United States is now at peak production. This schedule has been maintained for the last sixty days and is comparable to 1928 production. The prospects are that the present rate of output will continue for some time, Mr. Kieckhefer believes. Whether the demand is coming from firms that wish to build up their inventories or whether the cartons are passing into the hands of the consumers, it is difficult to say. The indications are that packaged goods are going to the consumer, which is considered a favorable factor.

Mills of the Kieckhefer company are now operating six days a week and three 8-hour shifts daily. They are located at Milwaukee; Delair, N. J.; New York City; Rockford, Ill.; Three Rivers, Mich.; Wilmington, Cal.; Seattle, Wash.; White Pigeon, Mich.; Honolulu, H. I.; Oakland, Cal.; Chicago; Detroit, Mich.; and New Orleans, La. Since the low ebb of business in February, 700 employees have been added to date in the plants. Wages have been raised ten per cent, and the minimum wage for unskilled labor has been fixed at 30 cents an hour.

The so-called Pollock plan, on which Willets Pollock, of Milwaukee, has been working for months, is reported as making headway although the peak schedules in the board industry generally have somewhat slowed up the program. The aim of the plan is to eliminate the smaller non-profitable board mills through purchase by the larger units, at the same time keeping employment up and costs down.

S. D. Warren Co.

The S. D. Warren Company, with executive offices at 89 Broad street, Boston, announces that more than 2000 workers in their mills at Westbrook and Gardiner, Me., will benefit from an 11 per cent increase in wages.

In announcing the increase the company officials stated that the paper company was heartily in favor of the Administration's policies and its programs as laid down in the Industrial Recovery act, and that it, in common with other paper companies, had anticipated the general adoption of a code in the paper industry which would call for an increase in employment and higher wages.

The S. D. Warren Company has attempted to spread employment out as much as possible for the past few months by running on four six-hour shifts instead of the three which were formerly used.

In making this new rate effective July 2 the company has restored the rates which were effective last April 1, thus constituting an increase of 11 per cent to all employees in the mills.

The company stated: "We are glad to make these moves to help restore the purchasing power of our employees and thus to support the Administration in its attempts to accomplish industrial recovery."

Oxford Paper Co.

The Oxford Paper Company at Rumford, Me., has announced an increase in wages of 11 per cent, effective from July 1. Between 500 and 1,000 employees are understood to benefit by the advance.

Bedford Pulp & Paper Co.

William H. Brydger, superintendent of the Bedford Pulp and Paper Company at Big Island, was a guest of the Rotary club at Bedford, Va., last Thursday evening, and during his visit to Bedford said the paper mill is working full time with a full force of men again, with good prospects that it will continue to do so. He also said that the wages of the employees have been increased ten per cent.

Sabin Robbins Paper Co.

The Sabin Robbins Paper Company, of Cincinnati, Ohio, has voted a 10 per cent increase in wages to all of its employees in Cincinnati and its various branches in other large cities.

Keyes Fibre Co.

The Keyes Fibre Company of Waterville, Me., has added 100 to its working force. Minimum wages have been increased to 45 cents per hour and the maximum work week has been decreased from 48 to 42 hours.

Nashua River Paper Co.

The Nashua River Paper Company of Pepperell, Mass., has raised wages 10 per cent, thereby restoring some of the cuts made during the past two years.

J. P. Burke Speaks on Paper Code

GLENS FALLS, N. Y., July 17, 1933.—An interesting address was delivered here last week by John P. Burke, president of the International Brotherhood of Pulp, Sulphite and Paper Mill Workers, who discussed the Industrial Recovery Act before several hundred union members. He declared that the law provides that every industry engaged in inter-state commerce must prepare a code of fair competition and it is obligatory that this provides for maximum hours of employment and a minimum wage. He also advanced the opinion that he felt certain that the unions connected with the industry would present arguments when hearings are conducted in Washington on this code relative to a working day of six hours. He believes that the maximum hours established by the code would not be satisfactory to labor and also feels that it does not meet the purpose of the Control Act in providing more employment.

Canadian News Print Operators Await Code

Uncertainty Regarding Provisions Proposed by United States Association of News Print Manufacturers Unsettles Industry—Dominion Government May Co-operate by Licensing Companies Doing Business With U. S.—Price Competition Continues Intense

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., July 17, 1933.—News print operators here are looking forward anxiously to the publication of the code which the United States Association of News Print Manufacturers is preparing in connection with the National Industrial Control Act. Meanwhile uncertainty regarding the proposed provisions of the code is having an unsettling effect on the industry, and despite the statistical improvement in the news print situation, the position regarding price competition shows no improvement. Indeed, it is said to be showing signs of aggravation. As an instance, it is reported from Vancouver that one of the leading Eastern mills, in its efforts to maintain tonnage, took a contract on the Pacific Coast from one of the operators in that field, shipping the news print via the Panama Canal. The coast company, thus affected, a powerful organization controlled by American capital, retaliated by coming East and taking a contract from one of the Eastern mills in the same manner.

It is further stated that while an official price schedule is in existence, and is supposed to be adhered to by all manufacturers, numerous contracts have been made with publishers on terms as much as $9 per ton below the official price of $45 per ton f.o.b. New York zone.

There has been further discussion here of the suggestion that the Canadian producers might form an association similar to that in the United States once the provisions of the News Print Code become known. The idea now is that the Dominion Government might be persuaded to co-operate in the plan by licensing the companies doing business with the United States and through the licensing system enforcing regulations enabling the Canadian manufacturers to live up to the United States Code. This would provide the long-sought regulation of the industry which the manufacturers hitherto have found it impossible to agree upon among themselves.

Outlook Improves for Price Bros.

While the Protective Committee dealing with the reorganization of Price Brothers & Co., has been in session again during the past week, no announcement is yet forthcoming regarding the two proposals to which they are said to be giving earnest consideration—those put forward by a syndicate headed by R. O. Sweezey and by the Duke-Price Aluminum organization respectively. Meanwhile the outlook for the company is stated to have improved, and in this connection the following item published by the *Financial Times* of Montreal is interesting:

"Just how quickly conditions have changed, even in the news print industry, was shown recently when various interests around the street were approached by investment bankers who were desirous of forming a syndicate in connection with the possible Price Brothers reorganization. Even a few months ago it would have been impossible to get a group to look at Price Bros. It is pointed out, however, that there is a lot to attract attention, more particularly as it is felt that on any comeback in the industry the company is in a very favorable position to take advantage of any change that might occur. Just how lucky the company itself has been in regard to unforeseen changes is instanced by the big contract with Lord Beaverbrook's papers in London, England. At the time this contract was made it was regarded as a very unprofitable one owing to the low rate for the pound sterling. At the time it was further claimed that the company should have tried to get more business from the United States owing to the high premium at the time on American funds. Since that time, however, the premium on American currency has dwindled to very small proportions, whereas the value of the pound sterling has mounted steadily, and recently sold above the $5 level in the Canadian markets. This makes the Beaverbrook contract a profitable one for the Price Brothers organization and for the time being is one of the best that any Canadian paper company has with any one publisher."

Market Improvement for Finer Grades

Prices in the domestic market for the finer grades of paper have been showing improvement as a result of better general business conditions, and the outlook now is better than for a long time past. As an instance of what is occurring, the sales of the Howard Smith Paper Mills are reported for the last month to have been the greatest for any like period since 1929. There is anticipation now of a resumption of dividends and payment of arrears on preferred stocks. Last year the company, through economies, was able to show an increase in operating profits from $1,048,760 to $1,188,980, and after all charges surplus was increased by $127,167. The working position was improved also, from $946,572 in 1931 to $1,031,374 in 1932.

Mersey Paper Co. Expands

In connection with the recent note that the Mersey Paper Company, of Liverpool, N. S., had enlarged its market by securing an important contract for the supply of news print in Havana, it is interesting to find that the company has also opened connections with the Antipodes, via the Panama Canal. The Canadian commercial agent in Sydney reports that what is stated to be the largest shipment of news print to Australia recently arrived at Sydney from Liverpool, Nova Scotia, by the motor vessel *Indien*. It consisted of 7,680 bales, the weight of which was 5,000 tons, and was consigned to the *Sun* newspaper, the shippers being the Mersey Paper Company, Ltd.

Start Wood Flour Division

Lumber Bi-Products, Inc., 702 M. & T. Bldg., Buffalo, N. Y., have enlarged their activities by establishing a Wood Flour Division, recently purchasing the assets of the former New England Mills at Manchester, N. H. The plant covers 6½ acres. There are two railroad sidings to accommodate 12 cars of raw material and eight cars of finished product, at the same time. The present production is approximately 1,500 tons per month of various grades.

Wood flour is finely pulverized wood, which is refined into several grades and used as a cheap filler in numerous formulas to replace more expensive ingredients. Samples sent gratis, upon request.

M. J. Watson, president, has been associated with the wood flour manufacturing industry since 1920, and is familiar with the grades desired by the diversified industries.

Chicago Paper Market Continues Buoyant

Steadiness Prevails in Fine Paper Section—Book and Cover Papers Retain Firm Position—Bond and Ledger Papers Moving in Good Volume—Advanced Prices on Kraft Paper Well Maintained—Board Division in Good Shape

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, Ill., July 17, 1933.—Things are happening so fast in local paper markets that it is difficult to assemble them. Chicago, as a central point, is the site of a stream of committee and group meetings—the provisions of the National Industrial Recovery Act proving the chief attraction. Even the pre-Recovery actions are reported to be helping the markets as executives representing various grades of paper are getting together.

Krafts, the board market and sulphite bonds seemed to be in the most favorable positions during the week just past. Kraft held its previous price advances well and the market continued exceptionally firm. The board market is also carrying along in satisfactory shape while sulphite bond reports continue favorable with the under current very strong. The ground wood market reports no appreciable price advances as yet though demand holds up well, most of the mills reported at nearly 100 per cent capacity. Statements from local executives indicate that the news print market continues to lag behind for various reasons. Books and covers retained a firm basis. Bonds and ledgers were reported to have expanded, at least in volume, and the market remained steady during the week. Waste papers bettered their position.

Associations Draft Codes

Sixty representatives of the paper box manufacturing industry from all parts of the United States met in Chicago on Monday of this week to begin the drafting of a code of fair competition for the industry. The session was held at the Congress Hotel. On Sunday the group held a preliminary session discussing trade practices in general. Later meetings took up minimum wages, maximum hours of labor and other leading features of the code as required by the Act. The committee completed its work on Tuesday and presented its recommendations to the general meeting of the National Paper Box Manufacturers held at the Congress on Wednesday. The group represented an industry employing some 60,000 workers. While the provisions of the code were not made public it is reported that the cotton textile code was used as a model.

Using a recent survey covering wages, hours and number of employees in the industry, a committee of corrugated and fiber container manufacturers met at the Drake Hotel on July 12 to draft a trade practices code. The group is reported to represent between 80 and 90 per cent of the industry's annual business. The committee was a division of the Paperboard Industries Association meeting under the chairmanship of J. B. Fenton. Findings and recommendations, it is understood, are to be reported back to the parent association either for assemblage into a general code or for specific use.

The paper industry will also be interested to know that a committee of the Label Manufacturers Association deliberated during the week on a code, the findings to be presented to each of the 105 label manufacturers before going to Washington.

Healthy Price Situation

For the first time in a number of years the local paper industry has been singled out by local newspaper financial chroniclers as an index to business improvement. The reports are significant. One reads as follows: "A much more healthy price situation exists in the paper business than has been the case in some time, according to leading Chicago paper distributors. One company stated yesterday that in the last sixty days prices of about 85 per cent of the products it handles have advanced with the average about 15 per cent. Another concern stated that prices of the cheaper grades of sulphite papers have advanced from 30 to 50 per cent within the 60 day period. As examples, the price of the cheapest grade of book paper has been advanced from 4 cents to 6 cents a pound while one grade of coated book paper has advanced from 4½ cents to 6 cents, or about 30 per cent. News print is reported to have advanced about 10 per cent. There have also been some material advances in the prices of blotting papers, with increases on some of the cheapest grades moving up 1½ cents a pound or more. One printer stated that blotting paper for which he paid 7½ cents a pound several weeks ago now costs him 11¼ cents. The same printer said that he is now paying $1.12 a thousand for a standard grade of envelopes which a few days ago cost him 94 cents. Prices of raw materials have gone up, leading paper dealers were unanimous in saying. Old paper stock—used in the manufacture of cheap grades of paper—which some weeks ago sold at $8 a ton is now bringing $18 a ton, one dealer said. Another stated that pulp-wood producers are holding their products at higher prices than in a considerable time. One printer stated that he did not think some of the recent advances were justified, saying that it appeared as if the paper dealers were endeavoring to put prices on a high basis from which to start when they adopted codes under the industrial recovery act. Dealers in reply said that a good deal of paper has been sold at a loss and that the increase is normal."

News of the Trade

Included in a group of Illinois manufacturers who went to Washington on July 10 to find out how the Recovery Act will function in Illinois was Ray Wantz, vice-president of the Illinois Manufacturers Association and head of the Rockford Fibre Container Company. The group will confer directly with General Hugh Johnson, having been summoned by him to Washington for the conference.

From an Iowa paper distributor comes more news about the manufacturing of paper from cornstalks. The report states that for thirteen years the chemical engineers of Iowa State College have been experimenting on the feasibility of making paper from corn stalks, at the expense of the government, but the government has now ordered that the work of the laboratories be confined to the making of pulp from the stalks and sending the same to the laboratory at Washington where experiments may be continued in the making of white paper from the stalks. The report indicates that there are a lot of things from which a good quality of wall board can be made, but to make a satisfactory grade of printing paper is a much harder job. It is not at all certain yet, concludes the report, that it can be made from the stalks.

Bermingham & Prosser seem determined to convince the trade that supplying of paper for calendars need not be only a "once a year" job. The paper concern has issued

to its Chicago trade a 1933-34 calendar—the "Peacock Calendar" with some effective sales talk about the use of Peacock Folding Enamel in supplying calendar wants. Each month on the calendar is fittingly presented with a seasonal verse or quotation from some well known writer.

Another of those effective cartoons and snappy copy is utilized to call the attention of members of the Middle West Division of the Salesmen's Association to the next monthly golf tournament, scheduled for July 21 at the North Shore Golf Club. Bill Tilden, the golf chairman, calls attention to the fact that the event will be played over the same course on which the 37th National Open was held a bit over a month ago. Inasmuch as several meetings, committee and otherwise, are scheduled for Chicago next week, the Sapeyes are working hard to get as many guests out as possible. The usual features—luncheon, golf and a big dinner in the evening—will be followed.

According to George Birkenstein, Chicago, president of the National Association of Waste Material Dealers, the complete program of the two day session to be held in Chicago at the Hotel Sherman on August 8 and 9, is soon to be ready for all interested parties. Under the direction of J. V. Spachner and other local waste material dealers lined up with the waste paper industry, a splendid program is being arranged for this branch of the industry. Features of the National Industrial Recovery Act will be prominent throughout all the various committee and general sessions and at the annual banquet of the entire association.

Indianapolis Demand Increases

[FROM OUR REGULAR CORRESPONDENT]

INDIANAPOLIS, Ind., July 17, 1933.—Demand for paper continues to increase in this section and it can be stated that the entire industry is in better shape than it has been for months. From all sections of the state reports show paper mills are operating on increasing schedules, more men are being employed, sales resistance is lowered, and wages are being stepped up.

Fine paper demand has been affected along with the common grades, though it is doubtful if in the same proportion. However, there is a steadier demand, much of it coming from industries which are printing catalogues, or having them printed, for direct mail purposes and other uses. Prices are firmer.

In the matter of codes the Indiana industry will not be hard to please if the code is fair and it is demonstrated that its adoption will benefit the industry.

Summer specialties seem much in demand due to extremely hot dry weather that has broken all records this summer. Local jobbers say there is a consistent demand from all sections of this trade area for plates, napkins, cups and other items.

Paper stock men naturally are feeling much better than they did a couple of months ago. Mill demand for their stock is steady and prices are considerably advanced, with the tone this week firm. Warehouses are not bulging as they were and the entire movement has been considerably accelerated.

Paper men say the demand for stock from the lithographing trade has jumped to the front with the beginning of operations by a number of state breweries. Wall signs, heavy paper displays and similar advertising are much wanted, in addition to paper cartons for home delivery and bottle labels.

The credit departments in various paper establishments are more encouraged. Managers believe the tide has turned and credits can be more liberal and collections made in a shorter period.

Alexander Thomson Visualizes New Era

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, July 17, 1933.—It remained for Alexander Thomson, president of the Champion Coated Paper Company of Hamilton, and a high official of the Champion Fibre Company, in Canton, N. C., who is in the South on a tour of inspection to give expression to important statements bearing on the industrial situation.

Mr. Thomson attended the Southern Conference on Human Relations in Industry and on Saturday, July 15, delivered an address before that body that seems to have aroused considerable interest.

According to information reaching the Miami Valley, Mr. Thomson told the delegates the "new era will come for America as soon as she realizes that her best industry are her employees."

Speaking before an interested audience composed of manufacturers, scientists, research men and just plain business men, Mr. Thomson declared that "employers and owners must realize this fact sufficiently to scale wages and make employees' relationships accordingly."

Continuing further in his address, he said: "To many employers and owners have been absentee executives and landlords in the past, not concerned with the welfare of their workers, but conditions have awakened them to their social responsibility and the confidence of the Government in this social concern is manifested by the national industry recovery act, which entrusts employees and owners to map out their own code of co-operative agreement individually."

Miami Valley tradesmen were advised that more than 100 employers and executives of large business concerns attended the Conference, which was held at Blue Ride, North Carolina, not far from where the fiber plant of the Hamilton corporation is located.

One of the mills in this section which continued to operate practically without cessation during the recent depression, was that of the Champion Coated Paper Company in Hamilton. There were times when orders were not so numerous and the working forces were reduced to an extent, but the plant was never compelled to close on account of uncertain business conditions.

Studying Paper From Cornstalks

The production of paper from cornstalks is being studied extensively at Iowa State College, Ames, Iowa, by the United States Bureau of Standards in conjunction with the Iowa Engineering Experiment Station.

Equipment to enable the production of pulp by the sulphite as well as the soda and sulphate processes has recently been installed in the Chemical Engineering Building at Iowa State College where the studies are being conducted. Stalks are digested at Iowa State College and the pulp is sent in 500-pound lots to the Bureau of Standards at Washington, D. C., for final refining and manufacture into paper.

Extensive studies on the production of paper from various straws have recently been completed.

Paper Division Chief To Leave

WASHINGTON, D. C., July 12, 1933.—N. S. Meese, Acting Chief of the Paper Division, Department of Commerce loses his position effective July 15, due to governmental economies. Mr. Meese has been in charge of the Paper Division since 1925.

Also Miss E. E. Kangas lost her position, leaving only Miss B. M. Frost to do all of the work of the Paper Division. It is reported that that Division will be merged with the Lumber Division of the Department but nothing official has been announced as yet.

Activities of Fox River Valley Paper Mills

Mead Paper Board Corp. Negotiates for Purchase of Menasha Plant of Menasha Paper Corp.—Dells Paper & Pulp Co. Increases Output—Green Bay Tissue Mills Operating at Capacity—Additional Workers Added to Forces of Many Companies

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., July 17, 1933.—Negotiations are in progress for the sale of the Menasha Paper Corporation's mill at Menasha, Wis., to the Mead Paper Board Corporation, of Chillicothe, Ohio. Announcement of the pending deal was made last week by J. M. Levin, vice-president and general manager of the Menasha concern. He said consummation awaits only ratification by debenture holders and creditors.

This mill has been devoted to the manufacture of straw board and chip board, operating with one 72-inch and one 84-inch Fourdriniers, capacity thirty tons daily. Several changes of owners have taken place within the last five years and it is believed the change now contemplated will restore the mill to steady operation. It normally employs more than 100 men but has been inactive for some time.

Production continues to climb in Wisconsin mills and is practically at a normal basis in some plants. The Dells Paper and Pulp Company, Eau Claire, Wis., stepped up its output last week to a normal operating basis for the first time in months, with approximately 350 men at work. The mill is now maintaining three 8-hour shifts daily and looks for its flow of orders to continue their present volume.

A new estimate of the situation at Green Bay, Wis., is that the mills there, mostly in the tissue field, have booked orders so far this year nearly equivalent to the whole volume of orders in 1932. The mills are operating at about capacity. Jobbers are scampering into cover to stock up before increases take effect.

The Marinette and Menominee Paper Company, and its subsidiary, the Victory Bag and Paper Company, Marinette, Wis., have added 75 men since March 1 to take care of heavier demand. Thirty extra employees have been added at the Tuttle Press, Appleton, Wis., according to R. H. Purdy, general manager. The increase in orders noted several weeks ago has continued to the point where increased output was necessary.

The Combined Locks Paper Company, Appleton, Wis., has increased the number of working hours per week among its employees. Increases in orders have been encouraging, and schedules will be lengthened again if the gains continue. Another slight increase has been made in the number of employees at the Valley Iron Works, Appleton, Wis., where the number of workers was increased nearly 100 per cent several weeks ago. Orders have kept up the pace which restored the plant practically to normal production.

Legislature Passes Reservoir Project

What appeared a week ago to be a hopeless situation has been reversed and now appears a certainty, through the passage by both the assembly and the senate of the Wisconsin legislature of a bill permitting the Wisconsin Valley Improvement Company, Wausau, Wis., to build two vast reservoirs on the Big and Little Eau Pleine rivers, and a hydro-electric plant near Knowlton, Wis., on the Wisconsin river. The bill requires only the signature of Governor Albert Schmedeman to make it a law and permit construction to start on this project, estimated at an expenditure of more than $4,000,000. The reservoirs will solve the water supply problem for the dams along the Wisconsin River, where most of the paper mills holding an interest in the Wisconsin Valley Improvement Company are located. The company is in reality a co-operative or holding concern serving jointly for all the mills on the control of the water supply for the dams.

When the first bill was introduced permitting the reservoir project, it was defeated in the senate largely on representations of Senator Walter J. Rush who said it did not sufficiently protect the public and the farmers. It was pointed out that 43,000 acres of land would be flooded by the reservoirs. The county board of Wood county immediately got busy because 4,000 acres of tax delinquent land would be disposed of through this deal. Thousands of signatures also were attached to petitions calling attention to the benefits of the project, especially the employment of about 2,000 men for a year and a half to do the construction work. When the extent of the demand for passage of the new bill became known, Senator Rush met with objectors personally and explained the measure in detail. The farmers who protested reversed themselves and declared themselves in favor. A new bill had been introduced in the assembly and was passed there before the senate again took action. The new one stipulates that 85 per cent of the land to be affected by the reservoirs must be purchased within two years after the bill is passed, at a ten year average market price, before condemnation proceedings can be started to acquire any acreage. The senate passed the new bill without opposition.

W. F. Thiele, chief engineer of the Consolidated Water Power and Paper Company, who drew up the plans for the flowage, spent considerable time in the state capital at Madison making the entire matter clear to the legislators. The legislature followed up this measure with another bill it passed permitting the Wisconsin Valley Improvement Company to bond itself for the financing of the improvement, subject to approval of the Wisconsin Public Service Commission. The company also may be able to obtain funds from the Reconstruction Finance Corporation.

Paper Mill Workers Organize

Whether "company unions" or mill councils used in the paper mills as the contact body between employer and employee will continue to hold their place or give way to fully organized units of the American Federation of Labor seems to be an issue that is forging its way to the front to carry out the terms of the National Industrial Recovery Act. A test came about a week ago when employees of the Combined Locks Paper Company, Combined Locks, Wis., were asked to form a company union. About 250 attended a meeting at which the proposal was voted down and they took action to form locals of the Papermakers' Union and the Pulp and Sulphite Workers' Union.

Other meetings have been held at Kaukauna, Wis., embracing largely the working forces of the Thilmany Pulp and Paper Company. Tentative unions under the A. F. of L. already have been set up and further sessions are to be held to elect officers. Those responsible for the organization efforts are Archie Hook, special organizer of

the Papermakers' International Union, who says he intends to spend some time in the Fox and Wisconsin River Valleys, and Ex-Congressman George J. Schneider, second vice-president of the International Brotherhood of Papermakers.

Mr. Schneider told the workers assembled at the meetings that the six hour day paying a living wage, abolition of all Sunday operations, time and a half for all overtime, and the abolition of the policy of working short-handed while thousands seek employment must be the recognized program of industry.

Al. Benson, state secretary of the Socialist Party, Milwaukee, appeared at the Combined Locks meeting and made the statement that "a company union can never give the worker fair representation because you are not on an equal basis with the boss and it is absurd to believe that the bosses whose object all these years has been to get labor as cheap as possible are now going to come across voluntarily with a fair deal."

News of the Industry

The Consolidated Water Power and Paper Company's first raft of pulpwood containing 10,000 cords was successfully towed from Pidgeon River, Canada, across Lake Superior to Ashland, Wis., last week. The wood is being loaded for shipment by rail to the mills. Three additional rafts will be brought across by the company's tug *Butterfield* this season.

Forrest Brainerd, of Philadelphia, Pa., and Miss Helen S. Haertl, of Neenah, Wis., were married at Neenah last week. Mr. Brainerd received his M.A. degree from the Institute of Paper Chemistry, Appleton, Wis., in June, and following his honeymoon trip to Yellowstone National Park, will be employed with the Scott Paper Company, at Philadelphia. His bride formerly was employed at the Institute.

The German freighter *Lenore*, which unloaded a cargo of wood pulp at Green Bay, Wis., recently, is obliged to remain in port because Captain Ferdinand Berger has been unable to pick up a return cargo. The uncertainty of currency values is believed responsible for the reluctance of any American concern to make shipments to Europe just now.

New Warehouse for Hubbs & Howe Co.

Another step in the progress of the Hubbs & Howe Company, of Cleveland, Ohio, whose success has been enviable, will be marked when the company occupies its fine new warehouse August 1.

An official of the company has furnished the following brief, but interesting, history of the company:

"The Charles F. Hubbs Paper Company was founded in 1855 by Charles F. Hubbs, Senior. Charles F. Hubbs, Junior, and Wm. H. Howe starting in the paper business in the New York office in 1888 have through their friendly dealings and keen business foresight built one of the largest paper groups in the eastern part of the country. From the New York house of Charles F. Hubbs Company they set out and established the Hubbs & Howe Company in Buffalo—of which Cleveland is a branch division. Then Hubbs & Corning Company in Baltimore, Interstate Cordage and Paper Company,—which recently took over the Pittsburgh Paper Company in Pittsburgh. Shortly after, the Hubbs & Hastings Company was established in Rochester; from there a branch in Troy, N. Y. was founded of the Charles F. Hubbs Company in New York.

"These well known companies do not comprise entirely the steady growth of the Hubbs Houses. In Toronto, the Victoria Paper and Twine recently built a new warehouse, one of the finest in Canada. There is also a branch division located in Montreal. At Merrittan, there is the Garden City Paper Company which has one paper mill and two converting mills. Those Canadian enterprises are very well known and are considered a big factor in their line of paper.

"In Cleveland—The Hubbs & Howe Company—has been well known since its incorporation November 1, 1909 with Henry G. Ihsen guiding the Company for 23 years. Much progress was made and Hubbs & Howe Company was firmly entrenched in the paper market here.

"Our former location at 1303 West Ninth street was gradually becoming a handicap to the efforts of our organization, so a new larger warehouse had to be the answer, and the location selected contains just double the space formerly occupied. This is a modern fireproof construction embodying all improvements for a paper warehouse includes 24,000 feet of floor space and a railroad siding with room for the unloading of three cars at one time.

"Our Hamilton street property has facilities which we believe are unequaled by any other paper house in the city of Cleveland and with the splendid situation of the building, we feel we can give improved service to our customers and greater convenience in handling our large stock of merchandise. The addition of new trucks for delivery service is another item of importance which Hubbs & Howe Company has seen fit to incorporate in the new setup for better, improved and continued service for our customers.

"Service is our motto.

"The active management of the Hubbs & Howe Company in Cleveland is in the hands of Martin D. Gascon and Frank W. Howe. H. G. Ihsen is our vice President and we are proud to list our fine sales force:—Charles L. Lang, H. A. Hepfinger, A. W. Cheely, C. B. Moorhead, N. C. Weber, Frank W. Sanders, P. F. Johnson, M. A. Miller, W. A. Melchior and J. N. Crosby."

New Paper Dress Shield

The Guardress Division of the Paper Tube Company, 1718-1720 N. Damen avenue, Chicago, has just placed on the market a new and improved patented dress shield. "Guardress," as this new shield is called, is of one piece construction and the arc fold gives a fine smooth finish eliminating stitching and offers many advantages to the dress shop and department store fitting rooms.

Guardress is manufactured by automatic machines, from a special soft white tissue, very absorbent, gives ample protection and being most flexible does not interfere with the perfect fitting of the sheerest gown.

Packaging is unique, 100 shields are packed to dispenser type folding carton, attractively printed in neutral two-tone gray with black band. The trade-marked name "Guardress" being printed in reverse. This dispenser hangs in a convenient place upon the wall of the fitting rooms ready for instant use.

Brief Account of Paper

The Paper Foundation, Inc., has just published an instructive booklet entitled "A Brief Account of Paper, What it is Made of, How it is Made, What it is Used for, Why You Should Use More, Paper and Paper Products."

The author of the booklet is William Bond Wheelwright and it is on sale at the Paper Foundation's Paper Exhibit at the Century of Progress Exposition, Chicago. It may also be obtained by sending 12 cents in stamps to the Paper Foundation, Conway Building, Chicago, Ill.

Boston Paper Market Shows Improvement

While Demand for Various Standard Grades of Paper Is Somewhat Irregular, Appreciable Betterment Continues in Aggregate—Wrapping Paper Request Fairly Persistent—Summer Specialties Seasonally Active—Good Call for Parchment Paper

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., July 17, 1933.—In a generally advancing market the demand for paper averaged well during the week under review. Some merchants reported business a little better, others that it was quieter, but in the aggregate the appreciable improvement continued. How much of the demand arose from real requirements and how much from a desire to cover against future price increases is unknown. All are looking forward to still more favorable conditions under the prospective workings of the Industrial Recovery Act.

An example of the benefit of rising values to paper concerns and printing concerns is related. A printer placed an order with a jobber for paper to be used for a price catalog. The work was practically all done when the printer's customer decided to raise his prices, with a consequent re-order for printing and for paper. A Boston jobber has heard of a New York house which has engaged a second building in which to store supplies of sulphite bond and Bristols against future orders. Manufacturers of fine writing paper say that conditions continued good. Some very good sales in rag and bond lines have been made. There is a favorable demand for new lines recently put on the market.

At the office of a firm here handling parchment papers for diplomas, it was stated that there was an active demand for this commodity, in preparation for the coming season. In some sections in the South and West, graduations are held about New Year, so that inquiries are made and orders are placed now. There is also a good call for parchment papers for certificates of stock. The demand for wrapping paper persisted in substantial volume. Summer specialties were active.

In paper stock, mixed papers and old newspapers, both strong, moved in the largest volume. Bagging sold very readily. Both new and old domestic rags were purchased in fair amounts. There was little movement of foreign rags on account of the exchange. Values were unchanged throughout the list.

Unique Wrapping Paper Display

A wrapping paper window display at the office of Carter, Rice & Co. Corp. shows in an attention-getting way the various methods by which wrapping paper may be used. One side is the interior of a shipping room in which is a bench with wrapping rolls, twines and cutters, also corrugated packing paper and towels. The other side is an outdoor scene, in which is a picnic basket, loaned through the courtesy of the S. S. Pierce Company, showing the Carter Rice commodity in actual use, with paper plates, cups, forks and spoons.

Solka Products Exhibit Attracts

The Brown Company of Portland, Me., had a large and very attractive exhibit at the Boston Shoe Fair, July 10-12, featuring its product, Solka, a wood fiber, purified cellulose. Among the articles displayed were the inner sole, upper stock, sock liner counter, box toe, upper stock with wood base, all made of Solka. The company showed Solka twine, in the manufacture of which no adhesives are used. This twine can be spun hard enough to sew shoes with and soft enough to make capes of. Face, toilet and cleansing tissues of the same material were displayed. One showcase contained goblets, cigarette trays, colorful buttons, poker chips, children's play dishes and lamp shades. Ruggets, made of Solka yarn, adorned the floor of the exhibit. The Osgood Shoe Company of Methuen, Mass., showed also the Solka products as used in footwear. One day there were 600 visitors at the Brown Company's exhibit. Business is very good at the plant of the Brown Company.

News of the Trade

Carter Rice & Co. is distributing to its entire mailing list a new sample book of Competition Bond, which represents an outstanding value in sulphite bonds because of the fact that it is tub-sized. The paper is of a new improved quality, even-sided. Competition Bond is made in a new brilliant shade of white and seven bright colors, blue, buff, salmon, green, canary, pink and goldenrod.

The Worcester division of Carter Rice & Co. has added to its stock D'Artagnan Cover, a strong cover stock made in black only, with a variety of special finishes.

The third in a series of fine paper educational meetings was held at the office of the Andrews Paper Company, Friday evening, with Fred Herbolzheimer, head of the fine paper department, presiding. With all the salesmen present, the evening was devoted entirely to a discussion of products of the Champion Coated Paper Company, Hamilton, Ontario, which the concern has just been distributing. The Champion lines were presented by George Stanbridge, New England manager of the Champion company. It was a most enthusiastic meeting and those present were told that with the sixteen paper machines, Champion would be able to service the Andrews Paper Company's accounts in a wonderful manner.

The Von Olker-Snell Paper Company has added to its offerings two new lines, Falcon Bond, a rag content sheet, stocked in white and colors, and Crest Ledger, stocked in white, buff and blue, made by the Parsons Paper Company, Holyoke, Mass. These papers have been received very favorably.

A new line which Percy D. Wells has put on the market is Franconia Bond, which he says is the "best seller of the year." In his new price list, he includes a large variety of papers, including bonds, ledgers, weddings, cabinets, book papers, posters, Bristols, envelopes, etc.

George D. Allen, treasurer of Knight, Allen & Clark, Inc., and treasurer of the New England Paper Merchants Association, is enjoying a two weeks' vacation, including motor trips to New England's beaches.

T. M. Dix, vice-president of Spaulding & Tewksbury Company, has returned from a ten days' vacation to East Sandwich, N. H., on which he was accompanied by his family.

Wallace K. Graves, of the local sales agency of the International Paper Company, and representative of the Ticonderoga Pulp and Paper interests in Boston, left Saturday for a few days in Chicago.

F. A. Barr, of the Holyoke Card and Paper Company, Springfield, Mass., and Carl A. Schiebler, development man of the Pattern Paper Company, Ltd., of Appleton and Kaukauna, Wis., called on the trade recently.

Paper Demand Satisfactory in Philadelphia

While Local Fine Paper Distributors Are Experiencing Usual Summer Quietness, Volume of Sales Transacted Compares Favorably With Record of Corresponding Period Last Year —Ten Per Cent Advance on Sulphite Index Announced

PHILADELPHIA, July 17, 1933.—Dog day dullness was nowhere in evidence in the Philadelphia trade during the past week. It is true that the fine paper houses are experiencing rather than enjoying, but certainly not suffering, July quietness, but at that, their sales compared with those of a year ago are distinctly improved, and the market is virtually cleared up of the little printers who try to establish their credit, cut prices and let the paper houses bear the brunt of the loss.

Combined activities of the Philadelphia Paper Trade Association, the Typothetae, and certain activities of the Federal Government, have rather firmly established the standard cost accounting systems and the practice of fair competition, with result highly beneficial to the paper trade. An advance of 10 per cent of Sulphite index was announced by the fine paper distributors during the week.

The paper stock branch of the business continues in splendid shape. Prices paid by the mills have shown no further advance, but, on the other hand, stock can readily be shipped out just as fast as it is baled, and at outside quotations.

The mills in this district are about to go on a five-day week with three eight-hour shifts, induced to do so either by economic reasons or by suggestions or anticipated suggestions from the Government, but this has seemingly caused no decrease in the demand for stock.

On the other hand, the higher prices seem not yet to have been such an inducement to gathering up the stock as to congest the market. It is thoroughly well cleaned up and there are no indications that present prices, which the packers say for the first time in many years make the conduct of their business actually profitable, will be reduced.

The Philadelphia Paper Trade Association meeting last week was well attended, and the report of the special committee headed by George A. Weaver, which is studying the question of freight equalization, was listened to with interest and in a general way was approved. Chairman Weaver proposes upon his return to the City, after a week at Chicago, to endeavor to secure a meeting with the organizations or paper distributors in Baltimore, Washington, Scranton, Harrisburg, and other nearby centers, for the purpose of adopting a program of uniform dealings so as to establish a parity on freight charges for out-of-town shipments which will be equitable to all.

Tomorrow, Mr. Weaver, together with President Morgan H. Thomas, of the Garrett-Buchanan Company, will join with Mr. Higby of the Steven A. Powell Company, New York, George W. Aaronson of Aaronson Bros., New York, and Mr. Riley of the Sabin-Robbins Company in Philadelphia, for a business conference in Chicago, meeting there with D. W. Whitelaw of Detroit, John Bermingham of the Fort Dearborn Paper Company, Chicago, and Mr. Dickinson. The conference which is not directly connected with the activities of the National Paper Trade Association, will consider the stabilization of sales prices and costs, on job lots of paper.

The Course Paper Division of the Philadelphia Paper Trade Association meeting on Thursday, had a 75 per cent attendance. Representative Ardron of the Philadelphia Credit Bureau, spoke on the Interchange of Credit, and the membership was so impressed that its Credit Committee was instructed to formulate a proposition covering credit interchange. Mr. Ardron was introduced by George W. Ward as Chairman of the Committee on Credit Interchange. G. H. Batchelder, representing the Package Sealing Products Company, was elected to membership, making its total now 31. The Commodity Committee submitted an interesting report. The Committee will hold its next meeting on July 27.

The Typothetae of Philadelphia has secured the arrest and the holding under $1,000 bail, of a young man (John P. Deal) several years ago connected with a paper house (the Garrett-Buchanan Company) against whom charges of issuing fraudulent checks have been made by a number of printers and paper jobbers. The man in custody should not be confused with another of similar name still connected with the paper house in question, and whose uprightness was never questioned.

President Morgan H. Thomas of the Garrett-Buchanan Company, and Mrs. Thomas, are planning to spend August and early September in Europe.

The Wilcox-Walter Furlong Paper Company has recently taken on Franconia 100 per cent American Bonds made by Parker Young Company, Boston, Mass., in white and many colors. The firm has also taken on the Wytex-Offset, Wytex cover and Wytex Posting Ledger made of purified pulp and known as Solka.

H. B. Turner, formerly with Wilder Bros., is now placing orders through several jobbers. He will make a trip abroad in the Fall.

Raymond and McNutt, 9th & Sansom streets, have taken the agency for the Caslon Bond and Caslon Mimeograph and Ledger made by the Munising Paper Company, Munising, Michigan. Two new salesmen have been added to the printing paper department, Charles Cooke, formerly with Satterthwaite-Cobaugh Company, and Gus Bauer, formerly with Charles Beck Paper Company.

Butler Smyth, of the J. L. N. Smyth Company, will spend his vacation at Mount Desert Island, Maine, next month.

International Paper Co.'s Plans

Plans of the International Paper Company also call for a re-opening this week of its big mill at Piercefield where about 150 workers will be recalled. Workmen have been busy for some time looking over the machinery and incidentally taking all precautions to make sure that all is ready. Information received recently from the main office notified the residents of that village that bond paper would be produced upon the re-opening. It was learned that a schedule of five days a week of three shifts will be used and all former hands are to be recalled. Operations were suspended last March when many of the skilled workers went to other paper mill towns.

J. B. Van Horn Elected President

John B. Van Horn has been elected president of the Holyoke Card and Paper Company of Springfield, Mass., to succeed the late G. Frank Merriam.

Other officers selected were as follows: Vice President, Frank O. Hartwell; Vice President, Maurice A. Park; Secretary and Treasurer, Arthur L. Janes; Assistant Treasurer, Arthur Beston.

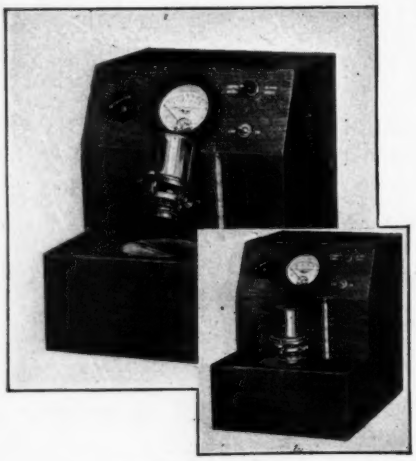
The Currier Size Tester

There has been a long felt want among paper manufacturers and users of paper for an accurate as well as convenient means of testing paper for its degree of sizing.

Innumerable articles have appeared upon the subject and no less than forty different methods have been proposed for its measurement, varying from perhaps the original "tongue" test through the use of interacting solutions and electrolytic conductivity to the proposed standard dry indicator method with distilled water.

It is generally conceded that distilled water is the most logical and applicable test capable of giving the most information concerning the internal sizing of paper.

It is not within the scope of this paper to discuss these various methods but for a most complete discussion one can do no better than to refer to "The Measurement of The Degree of Sizing of Paper," by F. T. Carson, which is published by the Department of Commerce as "Technologic Papers of the Bureau of Standards, No. 326."



CURRIER SIZE TESTER

The dry indicator method however, while apparently simple and not hard to execute, requires a technique which calls for close adherence to obtain consistent results. It is due to the inherent difficulty of judging color change which is most noticeable in hard sized paper when the change is slow. It was believed that some more easily operated method could be developed which would have the accuracy of the principle of the dry indicator method but would eliminate the very serious difficulty of the personal equation and perhaps be more convenient and rapid of operation.

The apparatus herein described eliminates the above objections to accurate and speedy determinations assuring exact checks by different operators and lending itself to use in the mill as a production check, in the office for the quick judgment of the sizing of papers and in the laboratory for accurate determinations with facility and rapidity.

The apparatus is essentially a device for wetting one side of the paper sample and keeping it wet until enough of the water has penetrated the sample so that a circuit is completed and the end point is indicated on a meter. Distilled water is used as the wetting medium and as the electrical indicating circuit enormously amplifies the infinitesimal current passage through the wetted sheet, the use of an electrolyte becomes unnecessary and a logical size test becomes possible. For special problems of liquid resistance to papers, in most cases the liquid itself may be used in the instrument in place of water.

The water is applied to the sample by a circular felt approximately one square inch in size. The felt is kept constantly saturated by being supported over the mouth of an inverted bottle through the offices of a specially constructed cap. As the bottle is otherwise airtight, except for the felt area at the mouth, no appreciable head or pressure is delivered to the sample and hence variation in the water level in the bottle has no effect on the test. Water is thus delivered to the sample at a rate which automatically keeps up with the rate of penetration.

The sample is placed on a horizontal metal plate normally dry either with or without an insulating grid, which will be discussed later, and the inverted bottle is so mounted that the felt assures contact with the upper surface of the paper over the felt area.

The felt and plate are electrically connected to the indicating circuit. The elapsed time between the moment the water touches the paper sample and when a definite amount of water has penetrated the sample as indicated by the meter gives the sizing value. By simply raising the bottle to remove the sample and wiping the plate dry with a blotter, the instrument is ready for another determination.

Provision is made for keeping the plate at a certain constant temperature at which tests have shown that rather wide variations in humidity and temperature have a small effect on the rate of penetration. The source of supply for the heating element is a forty-watt illuminating bulb connected to any light socket and as the thermo regulator installed in the instrument automatically controls the temperature the instrument is ready for use at any time.

Two circuits are available at the turn of a switch to make the instrument applicable to all classes of papers. One circuit is marked "Slack-Sized" and is used to measure the size resistance of very thin papers which are practically "water-leaf." The "Hard-Sized" circuit will be found to apply to all papers of any thickness and sizing degree, except those of the above type.

The indicating meter serves as an automatic calibration check for the instrument. Full scale deflection on the meter between the two positions of the felt in and out of contact with the metal plate, indicates that the apparatus is in calibration.

Mention has been made of a "grid" which is interposed between the sample and the metal contact plate. While most papers are non-conductors, some papers such as carbon or oxide colored papers are found to be conductive to an electrical circuit when dry. For such conditions some method must be found to overcome the completion of the circuit before the water has penetrated the same.

Through exhaustive tests it has been found that "Mitsu-Mata" fibre paper commonly used as microscopic lens paper is perfectly adapted for this use. It is an extremely open sheet and for the purpose used acts as a perfect insulating grid. It may be procured in very uniform thickness of approximately .00075": The "grid" is simply interposed between the sample and the test conducted as usual.

Any new method or apparatus must be proven to have basis for accuracy either by theoretical considerations or by comparison with some older and approved methods. While there are factors involved in the indicating circuit which give a very logical reason for the correctness of the results obtained, it is felt that a comparison of results with the proposed TAPPI Standard Dry Indicator test would give more graphic evidence of the claim for its correctness.

The Currier Size Tester is manufactured by the Sorg Paper Company, Middletown, Ohio, from whom additional information may be obtained.

Wood Pulp Freight Rate Hearings Resumed

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., July 17, 1933—At a two-days' hearing Monday and Tuesday before Interstate Commerce Commissioner John P. McGrath, an examiner, at the Hotel Lenox, arguments for and against proposed freight rate increases on imported wood pulp shipped from Boston to Central Freight Association territory were presented. Representatives of Western paper mills, New York importers, and various Boston interests were strongly against the proposed increases, favoring the retention of the present three cents per one hundred pounds differential on wood pulp from Boston to points West via the Canadian differential lines.

It is proposed to advance the differential rate from Boston by two cents per one hundred pounds and one cent from New York, with no change in the Portland, Me., rate which according to the testimony would reduce wood pulp traffic from this port to paper manufacturing states to a negligible amount or destroy it altogether. The proposed increases are applicable on water-borne cargoes from Scandinavian and other European countries and from the Pacific coast. Boston's wood pulp imports have been at least 200,000 pounds annually.

It was brought out that the rates in question were in effect before July, 1931, and had been in effect many years, except during the war period. The change came about, it was stated, through a clerical error which was discovered by the import committee that meets in New York. That committee referred the matter to the New England Freight Association which sought to correct it, recommending the increase.

The Boston and Maine and the New Haven Railroads are opposed to the increase, but the New England Freight Association, the rate-making body of the railroads, favors it.

Equalized Rate Requested

Daniel Males, one of the Boston witnesses, who is traffic manager for Gottesman & Co., of New York, importers of wood pulp, said that if Boston loses the case, it is thrown out of the wood pulp market because "it is our contention that there should be an equalized rate."

Mr. Males said that the paper mills buy the pulp only as they need it. They have no storage of their own. The importer has to keep it in storage at the ports, and he carries his stock where he has a potential sales area. Both Portland and Boston have good potential sales areas, and what is not sold locally sells to points in the Middle West.

Mr. Males testified that if the new rates go into effect Boston will receive only such imports as can be absorbed in this area and the wood pulp for the Western territory will go to the ports having the lower rates. He said the mills will not pay the extra cost of pulp from high rate ports when they can get the pulp from the ports offering the lower rates. The importers will not pay the extra cost.

V. W. Hatala Testifies

Vincent W. Hatala, of New York, chairman of the traffic committee of the Association of American Wood Pulp Importers, testified, in behalf of a large number of importers, that the addition of two cents per hundred pounds to the rates applicable from Boston to the Central Freight Association territory would limit the tonnage shipped to Boston to only that intended for consumption by nearby mills in New England or New York State. He said that the members of his association are vitally interested in the movement of import and intercoastal wood pulp through the various United States North Atlantic ports.

Mr. Hatala added that under the present rate basis, Boston has shared in the movement of a substantial tonnage, and the importers generally must be able to continue to use this port. The drastic change proposed will tend to disrupt the flexibility that is now enjoyed by pulp consumers and importers and will certainly injure and harm the interests of those concerned who now use the port of Boston.

Several other importers testified to the same effect, most of them coming from New York and New Jersey.

James F. Dougherty, representing Kalamazoo, Mich., paper mills and a number of Southern paper mills, testified that they would not go to Boston for their wood pulp when they could get it from Portland for two cents per hundred pounds less.

H. A. Dean, assistant traffic manager of the International Paper Company, said his company's mill at Niagara Falls would be directly affected by the proposed increases, as regarded shipments through Boston. He said his company's shipments from abroad were now routed through Portland at a differential rate of 20½ cents, and that with cheapness of rate the determining factor, a rise of even one cent would cause a shift to some other route, such as the New York barge canal or the St. Lawrence river.

Examiner McGrath announced that counsel would have until September 11 to file briefs with the commission in Washington.

New York Mills More Active

[FROM OUR REGULAR CORRESPONDENT]

ALBANY, N. Y., July 17, 1933.—Numerous paper mills in this section are speeding up operations with the result that thousands of former workers have been recalled and indications are that the improvement will continue. Reports from leading concerns are to the effect that the outlook is better now than for several months.

The Behr-Manning Company, Watervliet, started this week operating five days after observing limited production schedule for the past several months. Officials announced that the increased operations were brought about through a better demand for products of the concern. The company had been running four days a week.

Announcement is also made by the Racquette River Paper Company, Potsdam, of a resumption of operations five days weekly. A schedule of three days a week is now being observed at the sulphite mill which reopened a short time ago after having been closed for several months. The ground wood plant is running virtually full time. A continuation of increased improvement is anticipated by the company.

Capacity operations have also been placed in effect by the Newton Falls Paper Company which started up another machine at its Newton Falls plant early last week. The machine had not been operated for several months. About 25 men were recalled and the working force is now estimated at about 300 persons. The company produces book paper on an extensive scale. Officials claim that continued capacity operations will depend on the demand and that it was impossible to predict the amount of time required to handle present and future orders.

U. S. NEWSPRINT MANUFACTURERS SUBMIT CODE

(Continued from page 11)

not embarrass the consumers of newsprint by any immediate change in price, the following provisions are established. At the beginning of the year 1933 the base price generally prevailing was $46.00 per ton. Later in the year, because of the extreme depressed condition of business, a temporary discount of $5.00 per ton from contract price has been allowed by the manufacturers. Until a price having proper relation to cost can be determined for the industry, and approved by the President, the minimum base price of newsprint in the industry shall continue to be $46.00 per ton, subject to Zone Differentials as shown on Appendix B, which is hereto attached and made a part hereof, and subject to the temporary discount of $5.00 per ton. All contracts made hereafter shall contain the following provision: "The price fixed herein shall be superseded by any price established under the Newsprint Code or the National Industrial Recovery act, provided such established price is inconsistent with the contract price."

Members of the Industry shall maintain prices established under this Code, and shall not give or allow rebates, refunds, or concessions of any nature, specifically including discounts or commissions to agencies wholly or partially owned or controlled by consumers. The payment of the usual selling commission, not exceeding three percent, to independent jobbers or brokers shall not be considered a rebate. The purchase of reasonably required advertising space in publications shall not be considered a rebate, credit or refund, but the purchase of subscriptions or advertising space shall not be used as a method of granting rebates or reductions of prices to publishers.

Distributors, agents, brokers and other wholesale agencies and importers shall observe as a minimum the manufacturers' prices fixed by this code or any amendments or supplements thereto, and shall conform to the provisions of the Zone Chart and Trade Practices of the industry attached hereto as Appendices "B" and "C".

Minimum Wage

9. The minimum wage to be paid by employers in the industry to common labor, except watchmen and semi-pensioners, in mill production operations, shall be: male, 35 cents an hour; female, 27 cents an hour.

Operating Schedule

10. Employees paid on any hourly or piecework basis, engaged in mill production operations in Newsprint manufacture, except those employees engaged in an executive or supervisory capacity or in office work or as watchmen, cleaners, boiler house employees, filter plant employees, hydraulic, steam, steam electric and hydro-electric power employees, shall not work more than eight hours a day or forty-eight hours a week, except for time spent in repairs, wash ups, changing wires or machine clothing, or otherwise, while the mill (or the machinery in connection with which such workers are regularly employed) is not operating; and except that employees of ground wood and sulphite mills may be required to work more than six days a week when necessary to provide sufficient pulp for paper machines in the same mill.

Agreements

11. Notwithstanding any other provision contained in this code, the fulfillment of written agreements between United States Newsprint Manufacturers and any other persons, firms or corporations signed and in effect June 16, 1933 shall not be considered to be in conflict with the provisions of this code nor an unfair practice under its terms. However, if such contracts be in any way affected or modified by regulations promulgated or put into effect under The Act they shall be so affected only during such time as The Act is in effect and operative.

Provisions of contracts not actually signed prior to June 16, 1933 shall be superseded by provisions established under this Code or any amendment thereof or otherwise under The Act as far as there is any inconsistency between such provisions.

Code Violation

12. To further effectuate the policies of The Act, the Advisory Committee of the Association or such other committee, or such successor committee or committees, as hereafter may be constituted by the Association for that purpose, is set up to cooperate with the President as a planning and fair practice agency for the newsprint industry and to cooperate with the President of the United States in making investigations as to the functioning and observance of any of the provisions of this Code, both at its own instance or on complaint by any person affected, and to report the same to the President of the United States.

Such agency is also set up for the purpose of investigating and informing the administrator on behalf of the newsprint industry as to the importations of competitive articles into the United States in substantial quantities or increasing ratio to domestic production on such terms or under such conditions as to render ineffective or seriously to endanger the maintenance of this Code, and as an agency for making complaint to the President on behalf of the newsprint industry, under the provisions of The Act with respect thereto. Such agency may from time to time present to the President recommendations based on conditions in the industry as they may develop from time to time, which will tend to effectuate the operation of the provisions of this Code and the policy of The Act.

Trade Customs and Standards

13. The trade standards and customs covered by Appendix C, hereto attached, are made a part hereof, and any deviation from them is a violation of The Code.

Application

14. Some newsprint mills in Canada are owned or controlled by members of the United States newsprint industry. The operation and the sale of the product of such Canadian mills is not to be subject to this Code by reason of that fact, or by reason of their subscribing to this Code, to any greater degree or in any different manner than the operation or the sale of the product of other Canadian mills is subject to this Code.

Effective Date

15. This Code shall become effective ten (10) days after approval by the President of the United States. Provided, however, that paragraphs 8 and 9 thereof shall not become effective or binding unless and until protective regulation of imports provided for in Section 3E of The Act has been made effective by the President of the United States.

APPENDIX "A"

Articles of Organization and By-Laws

NAME

1. The name of the Association shall be The Association of Newsprint Manufacturers of the United States.

PURPOSES

2. The purposes of the Association shall be to establish and maintain such trade standards and practices as may be necessary for the general welfare of the industry in com-

pliance with the requirements of the National Industrial Recovery Act. The Association shall not be conducted for profit and shall have no transferable shares or memberships.

OFFICERS

3. The members of the Association shall at their first meeting and annually thereafter elect a chairman, a Vice-Chairman, and an Advisory Committee of five members, two of whom shall be the Chairman and Vice-Chairman.

MEMBERSHIP

4. Membership in this Association shall consist of those persons, firms, or corporations engaged in the manufacture of newsprint paper in the United States who attended the first meeting of the Association on May 26, 1933 at 201 Devonshire Street, Boston, Massachusetts, and such other persons, firms, or corporations so engaged in the manufacture of newsprint paper in the United States who may hereafter subscribe to these Articles of Organization and By-Laws.

VOTING

5. At meetings of the Association, any member may be represented by as many persons as he may choose, each member in attendance having one vote. At the request of any member, however, a vote by ballot is mandatory, and, in voting by ballot, each member shall cast one vote for each 1,000 tons (fractions disregarded) of Newsprint Paper which he has manufactured in the United States and invoiced during the second preceding quarter. Any member may vote by proxy duly authorized in writing. Votes by ballot may be conducted by mail, when the Advisory Committee considers such action advisable. Decision shall be made by a vote of a majority of tonnage unless such tonnage majority vote is disapproved by a two-thirds vote by number of the members voting in which even such disapproval shall veto the tonnage vote. This provision applies to all matters including amendment of the By-Laws.

MEETINGS

6. There shall be a meeting of the Association held annually in the City of New York on such day between February 15th and March 15th of each year as may be fixed by the Advisory Committee. Other meetings may be held at such places and times as may be selected by the Advisory Committee, or when requested by twenty-five percent of the membership tonnage. Notices of all meetings of members of the Association shall be sent by the Secretary to reach the members at least ten days prior to said meeting. Representation of fifty percent of the membership tonnage shall constitute a quorum at meetings.

CHAIRMAN

7. The Chairman shall be an executive officer of one of the members. He shall be elected at the first meeting of the Association and annually thereafter at the annual meeting of the Association. He shall hold office from the date of his election until the next annual meeting and thereafter until his successor is elected. He shall preside at all meetings of the Association and shall have general oversight and charge of the Association subject to the Advisory Committee.

VICE-CHAIRMAN

8. The Vice-Chairman shall be an executive officer of one of the members. He shall be elected at the first meeting of the Association and annually thereafter at the annual meeting of the Association. He shall hold office from the date of his election until the next annual meeting, and thereafter until his successor is elected. In the absence of the Chairman, the Vice-Chairman shall perform all of the duties of the Chairman.

ADVISORY COMMITTEE

9. The Association shall have an Advisory Committee, consisting of the Chairman, the Vice-Chairman, and three additional members elected at the annual meeting from the executive officers of the members of the Association. They shall be elected at the first meeting of the Association and annually thereafter at the annual meeting of the Association. They shall hold office from the time of their election until the next annual meeting and thereafter until their successors are elected.

In the election of the Chairman, Vice-Chairman and members of the Advisory Committee, representation shall be given to the newsprint paper producers in the three principal regions, Eastern, Middle West, and Pacific Coast States.

Members of the Advisory Committee may designate alternates to attend committee meetings in their stead. The Chairman of the Association shall be the Chairman of the Advisory Committee.

The Advisory Committee shall meet at such times as it shall designate and upon call of the Chairman. Notice of such meeting in each case shall be given by mail, telephone, telegraph, or in person to each member at least forty-eight hours prior to such meeting.

The Advisory Committee shall appoint, and at pleasure discharge, one person to act as Secretary and Treasurer, and shall fix his salary.

Any vacancy occurring in any office or in the Advisory Committee may be filled by the remaining members of the Advisory Committee whether constituting a quorum or not. Any person so appointed shall hold office until the vacancy shall be filled by vote of the members at the next meeting of the Association after such vacancy occurs.

The Advisory Committee may institute such regulatory or disciplinary action as may be required or permitted under the terms of the National Industrial Recovery Act, or of any Code of Fair Competition or agreement which may be adopted by the Association in accordance with the terms of said Act.

The Advisory Committee may appoint such sub-committees from among the members of the Association as it shall from time to time see fit and may discharge such sub-committees with or without their report.

SECRETARY AND TREASURER

10. The Secretary and Treasurer shall have no interest in the business of any member of the Association. He shall keep the records of the Association; shall receive and keep upon deposit the funds of the Association, in its name, in such bank or banks as may be designated by the Advisory Committee and in none other, and shall have the power to disburse such funds for the purposes of the Association, subject to the general direction of the Advisory Committee and subject to such counter-signature as may be prescribed by the Advisory Committee; and shall, in general, perform such other duties as may be assigned to him by the Association or by the Advisory Committee. He shall furnish such bond, conditional on the faithful discharge of his duties as Treasurer, as the Advisory Committee may designate. He shall prepare and submit at each annual meeting of the Association and at such other times and in such form as required by the Advisory Committee the Treasurer's report, showing the receipts and disbursements of all funds of the Association. Such audit of his accounts shall be made as required by the Advisory Committee.

RESIGNATION

11. Any member may resign from the Association by written notice sent by registered mail, addressed to the Secretary of the Association. Such resignation shall be effec-

tive upon receipt, but shall not, however, discharge the resigning member from the obligation to pay to the Association any dues or assessments which then remain due and unpaid.

EXPENSES

12. The expenses of the Association shall be met by assessments upon its members. Such assessments shall be based upon a pro rata apportionment among the members according to the number of tons of newsprint paper made by them in the United States, and invoiced by them respectively during the second preceding quarter. Upon the first of each month a bill shall be sent to each member for his share of the expenses of the Association. The Advisory Committee shall determine the total amount to be billed. Neither the Chairman, Vice-Chairman, nor members of the Advisory Committee shall receive compensation for their services, but may be reimbursed for their expenses actually incurred upon the business of the Association.

REPORTS

13. Upon request of the Advisory Committee, members shall furnish such information as may be required under the terms of the National Industrial Recovery Act, or of any Code of Fair Competition or agreement approved under the Act.

DURATION

14. The Association shall continue so long as the National Industrial Recovery Act shall remain in effect, in whole or in part, and thereafter until the Association shall be dissolved by a majority vote of its members.

AMENDMENTS

15. These Articles of Organization and By-Laws may be amended by a majority vote of the membership tonnage, at any regular or special meeting called for the purpose, or by letter ballot. Each notice shall contain in each instance a copy of the amendment proposed to be acted upon.

APPENDIX "B"

[EDITOR'S NOTE. Appendix "B" is a zone chart which was not furnished for publication.]

APPENDIX "C"

Trade Customs and Trade Practices

(1) NEWSPRINT is paper answering to the following descriptions:

(a) Standard Newsprint, as from time to time defined by the United States Treasury Department, the present definition being as follows:

"Rolls:
Widths—16 inches and over.
Diameters—28 inches and over.
Furnish—not over 30 per cent unbleached sulphite pulp, balance groundwood.
Ash Content—not over 2 per cent.
Thickness—not over .004 inch.
Finish—not to exceed 50 per cent gloss as measured by the Ingersoll Glarimeter.
Weight—not less than 30 lbs. nor more than 35 lbs. per 500 sheets, 24x36 inches.
Sizing—Degree of: Time of transudation of water shall be not more than 10 seconds by the ground glass method, or 5 seconds by the Alternate method.
Sheets—not less than 20x30 inches.
Other specifications as for rolls."

(b) Paper, other than Rotogravure Paper, of the type now being used in publishing regular editions of daily newspapers.

(2) In amplification of the foregoing definition—Newsprint is universally recognized as weighing 32 lbs. to 500 sheets, cut 24x36 inches. It is popularly known as white, cream white or blue white. Any of these or mild variations of them are to be the shades in which Newsprint shall be made and delivered.

(3) Every manufacturer shall deliver as Newsprint paper, as nearly as practicable, paper of a basis weight of 32 lbs. and no less. Five (5) per cent over or under specified base of weight shall be considered good delivery. Orders for heavier weight bases (over 24x36—32 lbs. to 500 sheets) shall be furnished at no price concession. Newsprint shall not be sold on a production basis.

(4) No Newsprint shall be designated as "Culled" and sold at a reduced price.

(5) The billing weight of roll newsprint shall be the gross weight, including paper and wrappers, less only the weight of cores if returnable cores are used. Gross weight will apply if non-returnable cores are used. Sheet newsprint shall be billed at the ordered weight unless there is a shortage in excess of 2½ per cent, in which event paper shall be billed at the actual scale weight.

(6) Terms—net cash United States Funds 30 days from date of shipment; or from date of withdrawal from warehouse in the case of water shipments; or 15th of month for shipments made during preceding month or any other mutually agreeable arrangement which contemplates an approximate thirty day cash settlement. 6% interest shall be paid on all amounts remaining unpaid on due dates. Time of payment may be extended beyond thirty days, provided interest at the rate of 6% per annum is charged after thirty days from date of shipment, or from date of withdrawal from warehouse in the case of water shipments.

(7) Returnable cores, either paper or iron, shall be charged to the purchaser at 2 cents per running inch and shall be returned promptly, freight prepaid, to the manufacturer. Cores shall be credited to the purchaser at the invoiced price when a prepaid bill of lading showing the number and sizes of cores returned to mill of manufacturer is received by the manufacturer. Non-returnable cores shall be included in invoice price of paper and shall not be returnable.

(8) No allowance shall be made for waste, damage or paper left on cores. In case of claim of any nature applying on any shipment, the manufacturer shall be notified immediately, but no claim shall be allowed for consequential damage.

(9) The differential for the customary light tints such as are now used by newspapers in sporting editions and color supplements shall be, in rolls, a minimum of $5.00 per ton over the zone price of White Newsprint in rolls.

(10) Miscellaneous Differentials:

For Newsprint in sheets the differentials shall not be less than those stated in the following schedule:

	White	*Colored*
For sheets 150 sq. inches and larger, per ton	5.00	10.00
For sheets 72 sq. inches to 149 sq. inches, per ton	10.00	15.00
For sheets 36 sq. inches to 71 sq. inches, per ton	15.00	20.00

These differentials shall be with relation to the zone price of White Newsprint in rolls.

$2.00 per ton shall be charged for skid loading if more than 3,000 lbs; $3.00 per ton on quantities from 3,000 lbs. to 2,000 lbs.; and $5.00 per ton for quantities of 2,000 lbs. and under.

Press trimming shall be charged for, over the sheet price, as follows:

$1.00 per ton for one side
2.00 per ton for two sides
3.00 per ton for either three or four sides

If sheet News is packed in skeleton frames, this charge shall be $5.00 per ton over the sheet price.

Counter rolls of nine (9) inches in diameter shall be not less than five dollars ($5.00) per ton over the zone price of roll Newsprint of standard diameter.

Side runs under sixteen (16) inches wide (which are not Standard Newsprint as defined by United States Treasury Department) shall take a differential of not more than $5.00 per ton below the zone price of Standard Newsprint in rolls.
(July 11, 1933).

To Have Charge of Paper Recovery

WASHINGTON, D. C., July 19, 1933.—General Hugh S. Johnson, Federal Recovery Administrator states in answer to a question from the PAPER TRADE JOURNAL correspondent that unless something unforeseen turns up, W. W. Pickard, a deputy administrator who has been conferring with various groups of the paper industry, will have charge of the paper situation for the Recovery Administration.

General Johnson stated at a press conference the latter part of last week that in spite of the fact that codes are beginning to flow into his offices in great numbers, it may be necessary to issue an order setting forth maximum hours of labor and minimum wages for all industries.

General Johnson made a similar statement earlier in the week and then conferred with President Roosevelt on the subject. The President is evidently behind General Johnson in this matter and has asked him to submit a report in the near future. The General stated that he did not know when he would submit such a report.

It is reported at the Recovery Administration that between 50 and 100 codes have reached its offices of which some are from small industries and others just from segments of industries. No exact figures have yet been made public.

To Act on Paper Code July 26

A meeting of the chairmen and secretaries of the Group Associations of paper manufacturers is to be held on Wednesday July 26, at the Waldorf-Astoria Hotel, New York, in the Le Perroquet Suite, at 10:30 A. M.

The purpose of the meeting is twofold: to prepare for submission to General Hugh S. Johnson, a final draft of the general code for the paper and pulp industry; and to act upon the reorganization of the American Paper and Pulp Association through which the general code for the industry will be administered. W. W. Pickard, a Deputy Administrator in General Johnson's office, will be present to assist on the code.

In order to expedite preparation of the code for submission, each representative of the Group Associations should be properly empowered to act authoritatively for the Group at this meeting. Mr. Pickard has stated that he wishes to be able to submit the general code for the paper and pulp industry on the following day.

Paper Index Number Up

WASHINGTON, D. C., July 19, 1933.—The wholesale price index number for paper and pulp for June was 73.5 compared with 70.7 for May and 76.2 for May of last year taking 1926 at 100 according to the Bureau of Labor Statistics, Department of Labor.

New York Trade Jottings

Royce Paper Company, Inc., paper, twine, and specialties, of 141 Broadway, Brooklyn, N. Y., has found it necessary to take an additional floor in the building now occupied, due to increased business.

* * *

Announcement has been made that F. W. Young, formerly treasurer and general manager of Filtration Engineers, Inc., New York, has formed a new company, for the manufacture of filters, deckers, pulp washers, save-alls, etc. The title of the new concern is Pulp Filters Company and its address if 44 Main street, Orange, N. J.

* * *

The Johns-Manville Corporation, New York, reports a net profit after charges for the June quarter of $92,204, equal to $1.23 per share on the 75,000 shares of 7 per cent preferred stock. This compares with a net loss of $953,-799 in the March quarter, and with a net loss of $602,270 in the second quarter of last year. For the first half of 1933 the net loss was $861,595, against $1,514,877 last year.

* * *

Mathieson Alkali Works, New York, has acquired the mines, plants and properties of the Beaver Products Company, of Virginia, a subsidiary of the Certain-Teed Products Company, of New York, through the purchase of all of the outstanding bonds of the Beaver Products Company, according to M. E. Aller, head of the firm. It is understood that a refuse of the gypsum mine will be utilized by Mathieson in the production of a new product that will be manufactured, details of which are not immediately available.

* * *

The National Consumers Paper Corporation and the William Salzer Corporation have consolidated under the title of the Metropolitan Paper and Bag Corporation, effective July 17. The address of the new corporation is 227 Sixth avenue, New York, and the telephone number is Canal 6-3142. The authorized capital of the new corporation is $450,000 and consists of 250,000 six per cent accumulative preferred stock, and 200 shares common stock of no par value. The officers of the corporation are Harold Kushel, president; William Salzer, vice-president and general sales manager; Benjamin Kushel, vice-president; Herman Rosenberg, treasurer, and Saul Reiner, secretary. The Metropolitan Paper and Bag Corporation will continue to handle the well-known lines represented by the National Consumers Paper Corporation and the William Salzer Corporation in the past, and will also take on additional lines in which both corporations have had vast experience. The new corporation will function to a great extent in the Metropolitan area, as well as nationally on certain lines, of which they have exclusive representation.

Japan Imports More Pulp

Imports of wood pulp into Japan during the first four months of this year exceeded those for the corresponding period of last year by 28 per cent and in 1931 by 69 per cent according to word received by the Department of Commerce. The greater part of these shipments consist of sulphite pulp from the United States, Norway, Canada and Sweden as the leading sources of supply.

Japan's exports of paper during the same period totaled 23,522 short tons, an increase of 7,000 tons over the corresponding period in 1932 but a decrease of 12,600 tons compared with 1921.

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CODES BEING HASTENED

The great experiment of industrial control was actually initiated on Monday morning of this week when the code for the great textile industry became effective. Of the great basic industries, oil and steel will place their codes in operation in a very brief period. Although no definite figures have been announced, it is stated that between fifty and one hundred codes from various industries have already been received by the Federal Recovery Administration at Washington, indicating a general spirit of co-operation with the President's determination to make the new plan operative throughout the country at the very earliest possible moment.

The preliminary code for the paper industry, first printed in the PAPER TRADE JOURNAL of July 6, aroused great interest and on the whole was favorably received. But judging from some expressions coming to hand, there are many points that will have to be ironed out before the code can be submitted to Washington for approval. The industry is so diversified and must consider so many factors that are peculiar to it that all this will probably take some time. However, those in charge of the framing of the code doubtless realize that there can be no undue procrastination. No instrument of this kind can be perfect and conflicting interests will probably be made to see that they must compose their differences with the idea of presenting the most perfect plan so far as it is humanly possible at the earliest possible moment.

Meanwhile, the paper industry is responding handsomely to the President's urging to advance wages and decrease hours wherever feasible without waiting for the codes for particular industries to be placed in operation. Many press dispatches in which representative paper manufacturers announce wage increases are printed elsewhere in this issue of the PAPER TRADE JOURNAL.

The general reaction to the forces that are being put to work to revive business is summed up by the financial editor of the *New York Times* as follows:

The picture of rising prices and reviving trade took on last week some still more striking colors. Steel trade activities rose 5¼ per cent; production was more than four time the low March figure. Actual takings of cotton by our spinners were shown to have exceeded in June all monthly records of the trade. The price of wheat rose in the week more than 14 per cent, of cotton fully 13 per cent. Such was the speculative enthusiasm that Thursday's total transactions in stocks on the New York Exchange reached 7,400,000 shares—a figure overtopping even such "records" as those of November, 1928, or March, 1929.

Prices of stocks and bonds, it is true, only overtook last week the "averages" of September, 1931, and the government's "commodity index number" still falls short of the first month of 1932, but their advance from the recent low level is respectively 123 per cent, 50 per cent and 12¾ per cent. It was hardly to be wondered at that Wall Street's talk of "inflation" was revived, and that the sober London Economist should forsee that "in a few months more" the impetus of "the inflationary movement" may be "all but irrestible."

To what extent the popular idea of impending reckless currency inflation may have had a part in the markets' action is no doubt debatable. It must have had its influence. The extravagant Stock Exchange prices of 1929 were reached because the public, egged on by the professors, believed implicitly that the New Era guaranteed perpetual rise. The utterly absurd depths to which stock and bond prices fell in 1932 were attained because the same ingenuous public (not without occasional approval by "economists") reached the conviction that the bottom had dropped out of everything, that the "capitalist sysem was doomed," and that the decline could have no limit except zero. The present attitude of the public certainly suggests that it is much the same highly emotional public as it was thirteen months ago or four years ago.

Still, a few considerations even now impress unmistakably the mind of every one capable of reasoning from facts. To begin with, there has been no currency inflation; instead, the American paper currency has been reduced by a thousand million dollars since March 5. In short, last week's 31⅜ per cent depreciation in the dollar's external gold price means, not that we have copied Germany's printing of twelve hundred billion new paper marks in the year preceding 1923, but that our government has suspended gold payments, with the resultant familiar flight of capital.

NEWS PRINT PRODUCTION FOR JUNE

Production of news print in Canada during June, 1933, amounted to 171,419 tons and shipments to 171,678 tons, according to the News Print Service Bureau. Production

in the United States was 84,384 tons and shipments 87,359 tons, making a total United States and Canadian news print production of 255,803 tons and shipments of 259,037 tons. During June, 20,672 tons of news print were made in Newfoundland and 1,396 tons in Mexico, so that the total North American production for the month amounted to 277,871 tons.

The Canadian mills produced 104,649 tons less in the first six months of 1933 than in the first six months of 1932, which was a decrease of 10 per cent. The output in the United States was 86,492 tons or 16 per cent less than for the first six months of 1932, in Newfoundland 16,162 tons or 12 per cent less, and in Mexico 1,806 tons more, making a total decrease of 205,497 tons or 12 per cent.

Stocks of news print paper at Canadian mills are figured at 43,068 tons at the end of June and at United States mills 21,964 tons, making a combined total of 65,032 tons compared with 68,266 tons on May 31, 1933.

The First Commercial Steam Turbine

At the Century of Progress Exposition in Chicago the Central Station Industry has an exhibit showing the development of prime movers and consisting largely of models of early and recent engines and turbines. One of the machines is a De Laval geared steam turbine driving a direct current generator which was actually used to supply current at the Columbian World's Fair at Chicago in 1893, and is believed to have been the first steam turbine generator unit placed in commercial service in the United States. The turbine, which is of the single stage, impulse type, ran at 24,000 r.p.m. and drove the 110 volt direct current generator at 2400 r.p.m. by means of a De Laval double helical speed reducing gear, developing 6.6 kw. The turbine wheel is mounted upon a flexible shaft, a device invented by De Laval some years previously.

Steam was expended from 125 lb. gage pressure to atmospheric pressure through diverging or flaring nozzles, which had been invented by De Laval in 1888 and which are now employed by practically all turbine builders. That the theory of such nozzles was far from obvious, however, is shown by the fact that when De Laval applied for a United States patent in 1889 he was met with the objection from the Patent Office that the idea was not workable, and it was only after the machine at Chicago had been exhibited in actual operation that the Office was convinced and the patent allowed.

A similar De Laval turbo-generator, which was built for locomotive headlight service in about the year 1903, has been split longitudinally and is also shown in the Central Station Industry exhibit. It is rated at 1½ hp. and was designed to receive steam at 200 lb. gage pressure and to exhaust to atmosphere. The turbine wheel ran at 39,000 r.p.m., which was reduced by a double helical gear to 5000 r.p.m. for the generator.

Bagley & Sewall Increase Schedules

WATERTOWN, N. Y., July 17, 1933.—Announcement is made of an increase in working schedules by the Bagley & Sewall Company, which has been on reduced time for the past several months. It is understood that the orders call for new equipment and repair work which, however, will not result in enlargement of the working force. An improvement in business has been noted for the past several weeks.

Production of Paper and Paper and Board Making Machines in Use 1932

The Bureau of the Census announces that, according to a preliminary tabulation of data collected at the annual census of the paper industry taken in 1933, the total production of paper and paper board in 1932 was 8,011,130 tons, a decrease of 14.6 per cent as compared with 9,381,840 tons produced in 1931.

Table 1 gives detailed production statistics, and Table 2 shows the numbers and capacities of the several kinds of paper-making machines in use.

The figures for 1932 are preliminary and subject to revision.

TABLE 1.—PAPER AND PAPER BOARD—PRODUCTION, BY KIND AND QUANTITY: 1932 AND 1931

The schedules used in making the canvasses for the even-numbered years are less detailed than those for the odd-numbered years, and consequently some of the items in this table may not be strictly comparable as between 1931 and 1932.

Kind	Tons (2,000 pounds) 1932	1931
Aggregate	8,011,130	9,381,840
News print, standard	1,047,047	1,203,263
Hanging paper	60,661	85,974
Catalogue paper	64,186	89,382
Book paper, uncoated	959,194	1,208,674
Cover paper	14,467	23,520
Wrapping paper, total	1,244,443	1,401,667
Rag content	61,088	79,718
Sulphite bond	235,653	246,971
Other chemical wood-pulp	127,557	160,909
Wrapping paper, total	1,244,443	1,401,667
Sulphite, manilas, etc.	168,624	199,780
Kraft	858,513	867,743
Other	217,306	334,144
Tissue paper, total	358,645	394,623
Toilet	169,976	150,652
Towel	52,534	53,521
Other	136,135	190,450
Absorbent paper	58,177	76,592
Building paper	293,549	395,359
Other paper	183,092	167,365
Paper board, total	3,303,371	3,847,823
Container board	1,592,532	1,903,792
Folding boxboard (bending)	887,145	905,710
Set-up boxboard (nonbending)	465,126	562,176
Building board	62,114	112,049
Binders' board	13,460	32,703
Cardboard	78,942	74,102
Leather board	19,808	26,715
Press board	3,542	4,000
Other board	180,702	226,576

TABLE 2.—PAPER MACHINES, BY TYPE, NUMBER, AND CAPACITY, BY KIND OF PAPER MADE: 1932

(The items in the "Number" columns indicate the kinds of paper and board made principally on the respective machines; but in cases where one or more machines of the same type are used for producing two or more kinds of paper or board, the items in the "Capacity per 24 hours" columns are distributed according to the relative amounts of the several kinds of paper or board made.)

Kind	Total capacity per year (310 days), tons of 2,000 pounds	Fourdrinier: Number	Fourdrinier: Capacity per 24 hours, tons of 2,000 pounds	Cylinder: Number	Cylinder: Capacity per 24 hours, tons of 2,000 pounds
Total	13,728,040	915	23,280	694	21,004
News print and similar paper, total	1,937,500	138	6,243	1	7
News print	1,745,300	116	5,630	...	....
Similar paper[1]	192,200	22	613	1	7
Book paper	1,698,490	214	5,479	...	....
Cover paper	44,640	15	134	2	10
Writing paper	744,930	154	2,334	4	69
Wrapping paper	1,993,610	202	5,845	47	586
Tissue paper	493,830	108	1,186	88	407
Absorbent paper	132,060	32	389	19	37
Building paper	769,110	5	164	64	2,317
Other paper	186,620	28	502	6	100
Board	5,727,250	19	1,004	463	17,471

[1] Catalogue, hanging, poster, novel, news-tablet, lining, etc. Data for the production of these classes of paper are included in the "Other paper" item, Tablet 1.

The West Virginia Pulp and Paper Company has advanced production schedule at the Tyrone, Pa., as well as at the mill at Williamsburg, Pa., in the same vicinity. Both plants are now giving employment to about 750 men. It is expected to continue on present basis for some time to come.

CASEIN

(DOMESTIC & IMPORTED)

We have recently completed a new casein plant at Warners, N. J. and are now in position to serve you from this additional shipping point.

OTHER PAPER CHEMICALS

ROSIN SIZE
(Dry—Liquid)
SATIN WHITE
SULPHATE OF ALUMINA
(Commercial—Iron free)
ENGLISH CHINA CLAY
SALT CAKE
WAXINE SIZE
ALWAX SIZES
TAPIOCA FLOUR
SAGO FLOUR

AMERICAN CYANAMID & CHEMICAL CORPORATION

535 FIFTH AVENUE · NEW YORK

Section of the
Technical Association of the Pulp and Paper Industry
Edited by Ronald G. Macdonald, Secretary

Transportation and Mill Handling of Pulpwood*

By George D. Bearce[1]

The first step in the transportation of pulpwood from the woods to the mill is in the driving and towing operation. Since this is esentially a woods problem and the average mill operator has very little information available it might be well to leave this to the discussions of the woods operators and foresters.

After the wood has been brought to the millboom the first step in a large percentage of mills is the slasher or cutting up process. Most of the modern news mills in Canada and Northern United States use the conventional jackladder type of slasher for long logs. This consists of parallel dogs which take the wood out of the water and discharge it on the saw table where it is slashed or cut up into four foot lengths by three or four saws depending upon the length of the wood.

The speed of the jackladder and saw table is usually predetermined so that the speed or efficiency of operating such a unit depends largely upon the method of feeding the jackladder. If it is possible to run the jackladder full with two or three logs on each dog, the amount of wood cut up will be nearer the capacity of the equipment, which of course is the proper way to operate if possible.

Some of the mills taking in a smaller volume of long logs use the conveyor chain type of log haul up. The wood is cut into four foot lengths by a swing saw or a saw table arrangement. This type of equipment functions in a satisfactory manner if the amount of wood that has to be cut up is not too great.

Barking Drums

The barking drum operation might be considered as the next step. There are two particular types of barking drums —(1) the trunnion and (2) the chain. The trunnion type is more widely used. If the bands and trunnions are kept in proper shape such a drum functions in quite a satisfactory manner. The chain slung type of drum has some advantages, although the disadvantage of having the entire load on the driving chain makes it essential that the chain be satisfactory and functioning properly at all times.

The construction of drums falls into two general types, (1) riveted and (2) bolted. The riveted type must be reconditioned about every season because the constant pounding of the wood causes the rivets to loosen. The bolted type of drum is under the same operating load although it is possible to change the individual bolts and tighten them during the operating season. On account of the very heavy service it is necessary to keep incessantly after the mechanical condition of the bolts so that the operation of the drums will not be interfered with.

One of the factors that in the past received a minor amount of attention is the matter of bark disposal. During the last few years there has been considerable agitation due to stream pollution and it has been necessary to stop putting bark in rivers and streams in many localities. This has led to the development of bark pressing and bark burning equipment. The conventional method of handling bark is to either put it through a bark press to remove the excess water mechanically, and then run it into a Dutch oven to burn it up. If as is the case in some mid-western mills, the wood is hemlock and very dry, such a procedure is not necessary. However, the majority of the larger mills operate their drums wet and must remove all excess moisture in order to burn the bark at all.

Bark Presses and Burners

There are several types of bark presses. The roller type such as the American, Northern and Paulson, depend upon the pressure of one or more sets of rollers to remove the water. This type can handle a large volume of bark but in general the amount of water removed is less than in the intermittent type such as the Nekoosa press. In the latter type of press there is a time element which allows for better drainage of water from the bark after the pressure has been applied. However, the intermittent type has not the capacity of the roller type.

Although the Dutch oven is the most popular type for bark burning, usually the amount of steam obtained is very small particularly if the bark has been removed through the wet drum system. There are several makes of driers which have been tried out. The Nordstrom bark tower is used at several mills with a reasonable degree of success. The Pehrson bark drier is also working out quite successfully. There are two or three other types of home made presses similar to the Hess equipment although it can hardly be said that any of the home made driers are very successful.

One feature that is recognized by those who have studied the bark burning problem is that there must be a primary and a secondary combustion chamber in order to get the best burning results from bark or similar material. The primary chamber is used to partly dry out the bark and thoroughly mix the hot gases and the secondary chamber is used for a major part of the actual combustion. Several plants have adopted the sloping grate type of furnace which

* Presented at the annual meeting of the Technical Association of the Pulp and Paper Industry and the American Paper and Pulp Association, New York, N. Y., February 13-16, 1933.

[1] Member TAPPI, manager New Brunswick International Paper Company, Dalhousie, N. B.

works out in a satisfactory manner in certain types of material such as well dried out bark or hog fuel. If the bark is not in semi-granular form there is a tendency to cake up, even with a sloping grate. It has also been found by experience that better combustion can be obtained by utilizing both the forced and induced draft. Many plants are quite successful in burning bark with a type of underfeed stoker such as the Type-E and Taylor.

Conveying and Stacking

After the wood has been cut up and run through the drum barker the principal problem is then the conveying systems; since every wood yard is differently constructed and laid out, there is no hard and fast rule for conveying systems. It is recognized that the long conveyors are most economically operated with a cable and button. The type of button, sprocket and drive is a special study and of considerable importance in the proper operation of such a type of conveyor. On the shorter hauls the conventional chain conveyor is used quite successfully. The satisfactory service of such equipment depends largely upon the general layout and secondly upon the type of material used in the chains.

There are several methods of stacking wood—the usual method is to have a long suspension overhead conveyor. Usually the cable comes round under the pile and the wood is brought back to the mill by the same cable that takes it out. Several mills have eliminated the structure and use only two or more large concrete piers at each end of the pile. The first cost of such equipment is much lower and it functions in practically the same manner as the suspension type. Another method of wood piling is by means of the stacker. This is effected by a double arm stacker or a single counterweighted stacker. Stackers of this type usually pile in a long single pile or two parallel piles. Recently a new type of piling was introduced with a single arm stacker moving in a semi-circular arc so that the wood is piled in a half circle around a central point. This eliminates extra conveying systems and has proven quite satisfactory.

Wood handling is a laborious and long operation in any case. However the development of the pulpwood grab and the wood drag have eliminated much labor and cut down the cost of returning wood from the pile to the mill. Both of these types of equipment require considerable power but this is made up for many times over because of the smaller amount of man labor required. In several mills handling approximately 275 to 300 cords a day this work is done by six to eight men.

The question of handling four foot wood from cars is an individual problem for each mill and since there is no adequate method of comparison, it will not be discussed.

The entire problem of wood handling in paper mills is something that deserves a great deal more attention than it sometimes gets. Since wood is the raw product it does not receive the attention of the pulp or the paper itself, so that economies in wood handling are sometimes overlooked. However, it is an expense in making paper and should be taken into consideration to the fullest extent.

Mountain Mill Resumes Operations

LEE, Mass., July 17, 1933.—The Mountain Mill Paper Corporation, manufacturer of glassine paper, has begun operations after being idle two years. President Donald L. Moore says production is expected to be at the rate of five tons a day. Other officers in the newly organized company are: Paul F. Moore, treasurer, and L. D. Frisbie, superintendent, all of whom are affiliated with the Westfield River Paper Company, Russell, Mass.

New Procedure for Testing Water Resistance of Paper Products

The Bureau of Standards suggests a modified procedure for its dry-indicator test for water resistance of paper products, for use in testing very resistant products such as fiber boards and waterproofed papers.

The dry-indicator method consists in sprinkling a mixture of sugar and water-soluble dye on one side of the test specimen and applying water to the opposite side. The time required for the water to penetrate through the specimen, which is indicated by development of the dye color, is the measure of the water resistance. In testing very resistant products, it is necessary because of the slow permeation of moisture, to have means of retaining the transuded moisture on the surface of the paper until it becomes sufficiently condensed to affect the indicator. The following procedure serves this purpose, is simple, and has the advantage of continuous visibility of the indicator.

The edges of the test specimen, about three inches square, are sealed by dipping into a suitable material such as beeswax, asphalt, or pitch. The indicator powder is now sprinkled on one side and a transparent cover, such as a watchglass or a piece of celluloid, is sealed over it. The coverglass should be somewhat smaller than the specimen and, if the nature of the material will permit it, the edges of the specimen can be bent up so that they will not come in contact with water at all when the specimen is floated. The seal is made with molten beeswax or pitch applied with a medicine dropper around the edges of the coverglass. Beeswax, or preferably beeswax containing a small amount of carnauba wax, will suffice for most materials. In some cases it is necessary to make the seal with pitch in order to prevent the specimen from pulling away from the coverglass when it gets wet. The specimen prepared in this manner is floated on water at a given temperature and a measure is made of the time required for the water to cause coloration of the indicator.

Book Papers Containing Crude Fibers Found Impermanent

The Bureau of Standards has published the results of its examination of papers in 229 old books secured from various libraries throughout the United States. The papers were examined for color and strength, and for kind and condition of fiber. The results showed that the chemical purity of the paper fibers was an important factor in the aging qualities of the papers, for the papers containing crude ground wood fibers were in a much poorer condition than those composed of chemically purified rag, wood, and straw fibers.

The publication dates of the books ranged from 1779 to 1930. The papers were composed of rag fibers until 1867. From this date until 1875 many consisted of rag with various mixtures of straw and chemically treated wood fibers. The first ground wood fibers were in a book published in 1875, and these fibers were found, largely in various mixtures with other fibers, quite extensively until around 1910. Therefore the permanence of papers in books published during this period is open to suspicion. The oldest paper made entirely of chemically treated wood fibers was in a book dated 1889. In several books, there was a mixture of the poorest grades of paper with the best grades, which explains some of the uneven deterioration of different pages.

The detailed results of these examinations are given in the Bureau Miscellaneous Publication No. 140, which can be secured from the Superintendent of Documents, Washington, D. C., for five cents (cash).

Modernizing Pulpwood Operations*

By Alex. Koroleff[1]

In Eastern Canada the territory with which I have been dealing the last six years, great improvement in pulpwood operations, in their management and technique, has been taking place, but without any spectacular display of modernization, and this vigorous progress proceeds even under the present discouraging economic conditions.

We are greatly indebted to pioneer loggers. Amongst them there were many outstanding men, and yet only very recently the psychology of many leading woods operators was of the kind characteristic of the medieval period; they thought or pretended that they knew all that is worth knowing and for this reason were incapable of rapid advancement; suggestions for improvements were often taken by them for heresy. Then, gradually, far-reaching changes took place; most of the "old regime" had to become less stubborn or were superceded by those who were frank in recognizing their limitations and willing to learn, to experiment and continually to improve. A modern era ensued in the woods. In this connection due credit should be given to forest schools.

New Attitude

The change in the mentality of the operators was followed naturally by important changes in administrative practices. Woods operations in Canada were conducted formerly by large contractors, "big jobbers," who acted as middle men between the companies and small jobbers. Small jobbers did the logging; big jobbers, with luck, kept the bulk of the profit. Both the experience of the logger and his accounting, frequently badly tangled, were kept only or primarily in his head. Guess was the chief guide and logging a gamble. This jobber system relieved the woods managers of a good deal of their work and direct responsibility, but its drawbacks were too great to be tolerated long.

Now this system is dying out rapidly and most of the pulp and paper companies conduct their operations directly through small jobbers and exercise continually increasing control over them. This works out satisfactorily but during the last few years some successful experiments have been made in operating through company camps run by jobber-foremen on a guaranteed salary plus a bonus basis. Straight company camp system has been used in Eastern Canada in the past but has not proven a great success. Of course a fair comparison of these administrative methods is possible only in the light of local conditions.

The majority of oldtime-administrators, while priding themselves on their long woods experience, were very wasteful as far as that experience is concerned. With large scale operations and their unavoidable complexity resulting from the great variety of conditions and methods employed, past experience can be utilized fully only if it is systematically recorded and analyzed. The recognition of this fact marks the transition point between the pioneer and modern periods in the woods.

Accumulation of Data

Only a few companies in Eastern Canada reached this point more than 10 years ago, and of course you know how this stands in your territory. I refer here not only to cost accounting but primarily to "control methods" which as understood by Canadian pulpwood operators comprise: (1) systematic accumulation of complete and accurate itemized records on output and cost in each step of woods operations under a given specified set of conditions; (2) analysis of this data; and (3) its intelligent application to planning woods operations and to accurate cost forecast. Combined with a reasonably complete and dependable forest survey, such data enables the woods management to estimate the cost of each job with much greater accuracy than even an experienced jobber would guess. Without this the feudal methods of the big jobber system probably would still prevail.

Control Needed

Control, which is so instrumental in changing the methods of woods management in Canada has much in common with some of the work being done by several American operators and, although to a less extent, with methods of appraising stumpage by the U. S. Forest Service.

Both Canada and the United States, however, are still behind some of the European countries, such as Sweden, Germany and perhaps even Russia, when it comes to sufficiently complete and dependable local and general production standards for various kinds of forest improvement work and for conventional methods in each of many individual steps of logging. I mean such data as tables of normal daily output per man, per horse, or per unit of common types of woods machinery, for commonly encountered specified sets of conditions; these data supplemented by the correction factors to be intelligently applied when the conditions deviate considerably from the accepted "averages."

Standards of Operation

Recently I suggested to the companies in the membership of our Woodlands Section that they pool such data on woods work standards as they have already accumulated, to classify it according to characteristic groups of conditions, to fill in the gaps and to issue a set of tables on normal output. This should be of great value to all the cooperators but I am not certain yet that this project will go over.

An average woods operator is still in a deeper rut than he realizes and this is often a cause of considerable if unobserved inefficiency. A plan inherited from the former years sometimes is carried on only through inertia in spite of the conditions that would well justify revision of the scheme in certain parts or even in fundamentals. This applies particularly to a general plan of the annual working cycle: to correlation of various steps of work with each other and with the suitable seasons of the year; for example, to the choice of the time of cutting, and of all other operations that may be shifted within wide limits; to massing woods labor at certain times or to more equal distribution of it through all or certain parts of the year; to overlap of individual steps of logging; and to a good many other important features.

It often simply does not occur to an operator, continually busy with various details of his current work, to step out of the rut and, under the bright light of critical analysis to inspect carefully the structure of his woods operations. His mental picture of this complex structure should certainly not be relied upon but special accurate records, preferably graphic, should serve this purpose.

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* Presented at the annual meeting of the Technical Association of the Pulp and Paper Industry and the American Paper and Pulp Association, New York, N. Y., February 13-16, 1933.

[1] Forester, Canadian Pulp and Paper Association.

Preservation of Printed Materials and Manuscripts

A Subcommittee of the International Institute of Intellectual Co-operation of the League of Nations has reported on the preservation of printed materials and manuscripts.

At the sixth session of this international commission, attention was drawn to the trouble experienced in the preservation of such documents because of the poor quality of ink and paper used in them, and it was suggested that an endeavor be made to determine the qualities of paper and ink that would ensure permanency and that an attempt be made to get the interested authorities to use such materials.

Members of the committee pointed out that it was already known what papers and inks would keep and that inferior products were used only as a matter of economy. To insure the use of guaranteed materials, it would be necessary to communicate with the several interested authorities and it was thought that the most interested persons would be historians.

Questionnaire on Preservation of Records

Consequently a circular containing the following questions was sent to the national commissions throughout the world:

1. What is the state of preservation of the publications (books and journals) and records (manuscripts and typewritten records) in your country, before and since the war?
2. Has a study of the subject been made in your country and what conclusions have you reached?
3. What is your opinion and that of the persons with whom you have consulted? What remedies do you suggest for this state of affairs? What remedies could be most efficiently applied in your country?

Replies were received from most of the principal countries.

Austria

In Austria it was observed that the official documents were short-lived and although the archivists have studied the problem, they have little hope of remedying the matter because of the financial situation of the country. Consequently they deem it necessary to protect their documents from light and dust and to use inks that do not contain acid.

Cuba

The Republic of Cuba reported that their records and official documents were in a poor condition.

United States of America

The National Commission of the United States, through the Washington Government Printing Office, sent the United States Government Specifications (1926) for printing paper that will endure indefinitely. They are as follows:

"Weight 25 x 40—500; 50 pound basis (24 x 36—480).
Thickness shall not exceed .0035 inch.
Strength shall not be less than 18 points.
Stock shall not be less than 75 per cent rag; the remainder may be bleached chemical wood, free from unbleached or groundwood pulp.
Ash shall not exceed 5 per cent.
Size—the total resin shall not exceed 2 per cent."

The United States Bureau of Chemistry which had done research work on the preservation of printed materials, maintained that there should be two kinds of paper; one for immediate use and the other for storing purposes. Since all kinds of papers, which are subject to a great deal of handling, will wear out, the problem becomes one of use and storage.

The Bureau of Chemistry and the Bureau of Standards agreed regarding the use of ink, in that they had had no trouble with the ordinary printer's ink and that black inks consisting essentially of carbon were permanent.

The Government Printing Office had conducted investigational work on specifications and durability of paper and as a result of it made the following recommendations: (1) If a paper of bond or ledger character is desired, the specifications for Grade 1, bond and ledger, covered by the "Tentative Specifications for Bond and Ledger Papers", Testing Section Government Printing Office, March, 1925, are recommended. These specifications cover several different weights and represent the highest quality of papers of this character.

In addition, for the most lasting quality, the following specifications are added:

Stock: 100 per cent white rags of the highest quality.

Color: It shall not discolor with age. This test to be made by exposing sample to sunlight for a definite period of time.

(2) If book paper is desired, the following specifications are recommended:

All rag stock, preferably high quality rags, well washed, not over-bleached and carefully handled in the process of manufacture. Amount of loading not to exceed 5 per cent and a minimum amount of sizing materials. The paper should be free from all injurious chemicals such as acids, bleach and sulphates.

No specification for strength is suggested because, in the manufacture of book paper, of the desired texture, it is impossible to obtain the high physical qualities characteristic of bond or ledger papers. It is also necessary to know whether a hard or soft texture of paper is desired, in order to determine the physical tests which should be specified on a paper of this character. The most durable paper can only be secured from the use of all rag stock of the highest quality.

In the New York Public Library the investigation had been especially directed towards bound volumes of daily papers which were in bad condition because of constant handling. It was found that the use of transparent Japanese paper greatly helped to preserve these papers.

The American National Commission reported that most of the States in the Union had carefully reviewed the condition of their paper and, in their memorandum Connecticut was cited as a typical example of a State in which the public records were in excellent condition. In this State, standard paper, comprising standard millbrand paper with dated watermark approved by the examiner of public records, must be used for public records. Also, the ink used for similar purposes, must be approved by this examiner.

Finland

The book paper used in Finland, except during the period from 1916 to 1919, has been durable, whereas that employed for journals has not. Consequently, to overcome this difficulty, all journals, to be kept in the university library, and archives of the State, have been printed on superior quality. Also the special paper used for all official

An abstract of a report relating to the Permanence of Papers prepared for The League of Nations by M. E. Whalley, Division of Research Information, National Research Council, Ottawa, Canada.

documents is carefully examined and the ink analyzed at the Ecole des Hautes Etudes Techniques.

LUXEMBURG

The National Commission of Luxemburg reported that, during the last two years of the war, their books and journals were printed on paper of inferior quality, thus enhancing the difficulty of their preservation. Later, the quality has improved, although no inquiry has been made in the matter.

SOUTH AMERICA

In a South American country, the Minister of Public Instruction agreed with the European authorities that the preservation of books and journals since 1914 had presented great difficulties and that the only means of overcoming them was to print legal documents on special paper and to use a permanent ink.

GERMANY

According to the German archivists, the records of that country, made during the war, were doomed to complete destruction. The Minister of Interior recommended that a durable paper be used for permanent records and that blue and violet ribbons for typewriters be prohibited.

The Subcommittee on Bibliography received a communication from the "Staatliches Materialprüfungsamt", in which regulations had been established to control the sale of paper and ink for official documents so as to insure their permanence. According to this bureau, research work had also been done on the durability of typed documents, colored inks used on typewriters, and carbon paper.

NORWAY

In Norway, the Minister of Commerce (1925) appointed a committee to formulate standards for the paper used in the service, and Mr. Holweck was appointed to make a survey of the existing conditions of the papers and inks.

From an examination of 1200 samples of old and recent papers, obtained from different countries, Holweck found that the quality of the newer papers was inferior to that of the older papers. This he attributed to the addition of materials and impurities, and therefore suggested that specifications should be made for each kind of paper, so that the purchaser would know what he is buying and the manufacturer what he must make.

Ink Specifications:

As a result of his research work on inks, he maintained that a lasting ink for all purposes must fulfil the following conditions: (1) it must be thin, flowing, and kept in a non-stoppered bottle; (2) it must dry quickly and must not stick even immediately after drying; (3) it must not be acid enough to attack pen or paper, or show any tendency to spread on the latter; and (4) it must contain sufficient iron and tannin so that after drying it will turn black, will not fade in light and will resist water and alcohol.

FRANCE

The report for the French National Commission was presented by Mr. Roland Marcel who reviewed the condition of permanent records, books and periodicals in continual use. He suggested that, for the preservation of such documents, kept in libraries and archives, they be bound and protected against heat, moisture and excessive use, and for official documents in continual use that they should be written on a pure fiber paper. In conclusion, he recommended that the committee should take into account all causes of deterioration and destruction, as faulty binding, moisture, insolation, and dessication, to determine the harmful constituents in the inks and papers.

GREAT BRITAIN

A detailed report sent by Great Britain comprised the views of the departments of His Majesty's Government on the permanence of printed papers and manuscripts.

The Public Record Office explained that, as they did not come into possession of documents until many years after they were printed, little opportunity was afforded them of determining the kind of paper on which such records were written. Furthermore, the era of wood pulp paper did not begin much before the end of the 19th century, very few documents had reached the office in a state of decay. Nevertheless, books printed between 1890 and 1900 were becoming discolored and the paper, brittle and decomposed.

The following specifications were furnished by His Majesty's Stationery Office:

Class I (Loft dried papers)

Composition—all rag, animal, tub-sized, free from starch or resin, free from added mineral matter, plate rolled. All azure and blue laid papers shall be colored with smalts only. Any adulteration of the coloring matter will be considered as added mineral matter.

Strength of Paper—Strength and stretch are specified for all papers in this section. The figures given represent the mean of results obtained for both directions of the sheet, and are calculated on a strip ½ inch (15 mm.) wide, having a free length of 7 inches (18 cm.) between the clips. The strength of the weaker way of the sheet must not be less than ¾ of that of the stronger direction of the sheet. Surface, color, texture and opacity shall be equal in all respects to those of the pattern accompanying the schedule.

Note—All papers in this class must bear ink after erasure."

Class IIa (Air-dried writing papers)

Composition—all rag, animal, tub-sized, free from starch, free from added mineral matter, air-dried, plate rolled. All azure and blue laid papers shall be colored with ultramarine. Any adulteration of the coloring matter will be considered as added mineral matter.

Strength of Paper—Strength and stretch are specified for all papers in this section. The figures given represent the mean of results obtained for both directions of the sheet, and are calculated on a strip ½ inch (15 mm.) wide, having a free length of 7 inches (18 cm.) between the clips.

Surface, texture, color and opacity shall be equal in all respects to those of the pattern accompanying the schedule.

Note—All papers in this class must bear ink after erasure.

Class IIb (All rag writing papers)

The same specification as outlined for Class IIa.

In the department of printed books of the British Museum, no special care has been taken to preserve documents, beyond the exclusion of moisture and the binding of paper-covered books and manuscripts. Those in constant use have been stocked in duplicate and triplicate.

In the department of manuscripts of the British Museum, ordinary precaution is taken against moisture and insects and special care against dust.

The experience in the department of oriental printed books and manuscripts of the British Museum was similar to that in other departments in that the books printed in the East were made of the poorest paper and soon decayed.

In submitting these observations, the Director of the British Museum added the following remarks:

1. The deterioration of paper following the adoption of wood pulp as the basis of its manufacture is generally known.

2. The loading of paper with chalk to obtain more brilliant illustrations, especially in the case of color printing, causes deterioration.

3. Librarians can do little to remedy these deleterious methods, which have been adopted for commercial reasons, except by limiting their purchases of books in which the quality of paper is inferior.

4. Public opinion is in favor of encouraging the use of good paper and typography in all books. This is promoted by such societies as the Bibliographical Society.

5. Librarians have methods for preserving and repairing defective books and documents by treatment with size and covering with silk gauze.

6. The British Museum is entitled, by the Copyright Acts, to receive a copy of every book published in the United Kingdom on the best paper on which such books are produced. By special arrangement, a copy of the "Times" newspaper has, for many years, been supplied on special paper.

7. In 1898, the Society of Arts conducted an inquiry on the deterioration of paper and investigated the manufacture of leather for book-bindings. It might be invited to make further inquiries on these subjects.

8. The Bibliographical section of the Institute of Intellectual Co-operation could perform a useful service by undertaking laboratory work on the quality of papers and inks, especially those used in typewriting.

In addition to the above memorandum, the British Government Chemist, Sir Robert Robertson, stated that "from the chemical point of view, knowledge is increasing with regard to the purification of cellulose with the object of obtaining it in a more resistant form" and that he was of the opinion that "the chemical aspect of the question should receive more consideration." He also suggested that the Cotton Research Association, the Linen Research Association and the Research Department, Woolwich (Explosive Section) might be able to give assistance in the problem.

A communication was sent from the Public Record Office by Mr. Jenkinson on the use of cellulose preparations and of parchment size, in which it was concluded that the preparations of nitro-cellulose or cellulose acetate in use could be regarded as safe as it was not known what their ultimate effect would be on documents. On the other hand, a methyl-acetate might be regarded as safe in the same sense and the deposit resulting from its application would also be safe, that is, the documents so treated would not be more inflammable than they were before. But none of these cellulose preparations could be used where there was the slightest danger of fire. Although this danger could be removed by replacing part of the solvent by chloroform or carbon tetrachloride, it would be expensive and besides, would require special ventilation.

Experiments were made in the Public Records Office with a size (prepared by boiling fragments of parchment and vellum in water and applied warm) on old paper in a soft "soggy" state and with decayed parchment, which seemed to show that the size produced an effect nearly, if not quite so good as that of "Zapon." It was very easy to apply and did not require the preliminary process of drying the paper or parchment, although it did take longer to dry afterwards. The size also appeared to be a reliable fixing agent, e.g., writings with graphite.

Size was not considered to be a substitute for repair by filling or backing with paper, parchment and gauze where a document was badly damaged; in such cases it was merely the final step in the process of repairing.

GREECE

It was recognized that an inquiry should be made into the problem of the preservation of documents and manuscripts in Greece, but nothing had been done.

HUNGARY

The National Commission in Hungary reported that, although the paper in use was more fragile than that made of wood, it was quite durable and the ink met their demands; consequently, it was not necessary to take special measures to ensure its permanence.

ITALY

The report presented by the Italian National Commission stated that their books and printed materials were in a pitiable condition since the war, and that the deterioration of modern documents was due to the materials used in the manufacture of paper and ink. Only occasionally was paper manufactured from linen, hemp or cotton rags. Some better quality papers were made from cellulose, extracted from wood or straw, whereas other papers were made from pulp obtained from the scrapings of wood and contained mineral substances. Such papers were readily attacked by vitriol used in the manufacture of ink and naturally soon perished. Furthermore, aniline ink used on typewriters destroyed the paper within 10 years. This was important as valuable documents were frequently typed.

Satisfactory results on the permanence of papers and inks were obtained, when the following articles in the Decret Royal (1900) of Italy were applied:

Art. 43: Paper for editing documents shall be of good pulp, well-sized, capable of resisting the ravages of time and of preserving the legibility of the writing. Paper used for editing laws, orders-in-council, mandates and despatches shall be of linen.

Art. 46: Ink for documents shall be black, free from aniline or corrosive materials, and resistant to light and decolorizing substances. The sand for drying the document shall not contain metallic particles.

Art. 52: The use of chemical preparations for correcting mistakes on the document is prohibited. Only ordinary correspondence shall be typed.

HOLLAND

Information obtained from the Netherlands showed that the condition of modern documents, especially those typed, was in a deplorable state. Only papers stamped by the State or carrying the watermark "normal" were guaranteed to be certain quality. For exceptionally important publications, Japanese paper and an almost imperishable ink were used.

POLAND

The Academy of Science and the Eiariowski Institute in Poland reported that since the war several special copies of all their publications have been printed on a superior quality of paper. In fact, it was only during the war that they had been forced to use inferior paper.

SWEDEN

The Chief of the Bureau of Control of the Department of Finance in Sweden reported to the National Swedish Commission that regulations had been formulated regarding the different kinds of paper and ink used for official documents. In his report he stated that a "normal paper" must fulfill the following conditions:

	Class I	Class II	Class III	Class IV
Mean breaking length as a minimum	6,000	5,000	4,000	3,000
Mean tensile strength (measured in per cent of original length)	4.0	3.5	3.0	2.5
Mean resistance of friction determined by the Schopper machine, number of folds, as a minimum	190	190	80	40

These values are the average results of the experiments made according to the length and breadth of the paper. A margin of 10 per cent tolerance is allowed before placing a paper into a lower class. Classes I and II are made entirely of linen, cotton or hemp rags; Class III of rags with the addition of not more than 50 per cent of cellulose, made from different species of wood, straw or esparto; Class IV made of any kind of material, but must not contain any purely mechanical pulp. Only the ferro-gallic inks are accepted as "normal" and they must meet the following conditions: (1) be clear fluid, not acid enough to attack the pen, nor have a tendency to spread on the paper; have a lasting color and produce a writing which dries quickly without stickiness; (2) contain not less than 5 g. of iron per 1.; (3) be completely indelible in 15 days; (4) produce a dark color and be as resistant to light, air, water and alcohol as an ink composed of 23.4 g. of tannin, 7.7 g. of crystallized gallic acid, 30 g. of iron sulphate, 10 g. of gum arabic, 2.5 g. of concentrated hydrochloric acid and 1 g. of carbolic acid, made to 1 l. The inks are tested according to the regulations of the Bureau of Control and Standards.

BULGARIA

The President of the National Bulgarian Commission stated in his communication that all their printed material, especially since the war, was in a deplorable condition because of the use of poor paper and ink. To remedy this condition, the government would be obliged to insist upon the use of lasting paper for all official and important documents.

DENMARK

The Secretary of the Danish Commission pointed out that the quality of the paper used for documents was becoming worse as time went on, and that, although the price for materials had increased, a better quality would have to be used.

Recommendation to League of Nations

A communication, submitted at the meeting of experts on the preservation of public records by Dr. Holweck of Norway, pointed out that the writing materials commonly used do not generally possess the properties necessary to withstand much handling or prolonged storage. He proposed therefore that the Committee classify the different uses of paper as follows:

For important use and storage of indefinite duration		For important use without special reference to storage		For ordinary use without special reference to storage		For use where the paper should be destroyed after a short space of time
Subject to much handling	Very little handling	Subject to much handling	Very little handling	Subject to much handling	Very little handling	

Also that each subdivision in this classification be illustrated with typical examples, that is, under the first heading: treaties, deeds of conveyance, legal establishment of titles, certificates of nationality, bills of measurement, etc. Such lists of examples should be compiled in co-operation with the League of Nations possessing very accurate knowledge of the different documents issued or filed by the League.

It was stated in his report that the defects found in materials now in use could be avoided as the raw materials and processes of manufacture of ink and paper are fully known, and that, since certain qualities of paper and ink used on old documents have withstood deterioration, the use of similar materials properly adjusted in the processes of the modern paper mill would doubtless make it possible to produce paper of the same, if not of a better quality. The better grades of raw materials now used in papermaking are good enough provided they are not subjected to strong agencies or rough handling at any stage of the manufacturing process such as, for example, enzymatic deterioration, strong bleaching, strong acids or bases, high temperature or excessive mechanical disintegration. The following principles are recommended therefore, by Holweck, as a guide to the officials responsible for selecting paper:

1. THE NUMBER OF ELIGIBLE QUALITIES OF PAPER SHOULD BE LIMITED. THE FOLLOWING WERE SELECTED:

1000: Paper made from lightly bleached or preferably unbleached linen or hemp. If possible, no refuse from other textile processes. If new linen rags are used, the whole manufacturing process must be known and under immediate control.

2000: Paper made from clean, strong, new, undyed rags of linen, cotton or hemp.

3000: Paper made from 50 per cent clean, strong, new, undyed rags of linen, cotton or hemp, and 50 per cent coniferous sulphite pulp, lightly bleached and of the highest quality.

4000: Paper made from lightly bleached coniferous sulphite pulp. At the discretion of the manufacturers, it may be blended with not more than 25 per cent other fibers to increase the strength of the paper.

5000: Paper made from lightly bleached coniferous sulphite pulp of the highest quality.

6000: Paper made from 50 per cent coniferous sulphite or sulphate pulp and 50 per cent groundwood.

7000: Paper made from groundwood. At the discretion of the manufacturers, it may be blended with not more than 25 per cent other fibers to increase the strength of the paper.

8000: Paper especially made for envelopes and wrapping.

Within each of the above-named groups, a distinction should be made between writing- and printing-paper.

2. THE NUMBER OF THICKNESSES SHOULD LIKEWISE BE LIMITED

As the paper-makers of most countries have generally adopted 1 g. per sq. m. as the basis for thickness (substance) measurement, it would seem advisable to use the same basis of measurement and the thickness (substance) should only be varied by steps of 10 g. per sq. m., the series of thicknesses thus obtained being sufficient down to 40-50 g. per sq. m. Smaller subdivisions for thinner grades are likely to be unnecessary.

3. DETAILED SPECIFICATIONS FOR EACH GRADE OR QUALITY

Assuming that the League of Nations has to place contracts for paper in the same way as any other great consumer, detailed specifications should be worked out for each separate grade of paper, containing qualitative and quantitative descriptions of the useful properties and a statement of the undesirable properties. It will be also necessary to include a statement of the testing methods to be employed. When some of the properties cannot be strictly defined, a set of standard samples should be provided.

4. COLLECTION OF STANDARD SAMPLES

Conditions that cannot be fulfilled should not be included in the specifications and the provided samples should prove an effective safeguard, especially if it is understood that only such specifications will be issued as are based on the testing of these standard samples.

5. EACH QUALITY SHOULD BE GUARANTEED AND WATER-MARKED BY THE MANUFACTURER

Each quality of paper should be marked with the name of the manufacturer and the number of the specification according to which it is made. Such markings as water-marks will probably be a sufficient measure of precaution against inferior qualities. This precaution can be supplemented with actual tests, and it is understood that lists of manufacturers are kept who are able to deliver goods according to the approved specifications.

6. LISTS SHOULD BE PUBLISHED SHOWING THE QUALITY OF PAPER RECOMMENDED FOR EACH SPECIAL PURPOSE

It would be impossible to make complete lists, but it is possible to give many representative examples which could be used as a guide.

7. INKS, TYPEWRITER AND CARBON PAPERS

The principles outlined above, based on detailed specifications, quality, marking and lists of manufacturers can be applied to inks, typewriter and carbon papers with suitable alterations.

Apropos of the resolutions pertaining to the preservation of manuscripts and printed matter, a committee of experts meeting in January, 1928, recommended:

1. That the attention of governments be drawn to the necessity of using papers manufactured according to the following directions:
   (a) to prefer, under present conditions of manufacture, a paper made of unbleached rags, keeping in mind that some of the new processes for the recovery of cellulose will assuredly yield a paper having lasting qualities;
   (b) to avoid all harmful effects from coloring matter, fillers and size, as well as those arising from acidity;
   (c) to establish standards for the soundness of paper;
   (d) to watermark the paper with the name of the manufacturer and its specification.

2. That the use of the best iron tannate inks should be continued, but that research on other kinds that will not injure paper should be encouraged; that only typewriting ribbons and carbon papers colored with carbon black should be used.

3. That, since English and American papers, for some time past, have produced on their rotary presses, a limited special edition on rag paper. It is desirable that this practice should be adopted in all countries, beginning with the official journals and following the practice recommended in paragraph 1.

That, in case it is not practicable to issue special editions there should be used for copies for the Archives, transparent Japanese paper, sized on both sides, in accordance with the practice followed in the United States for the past decade; and

That, in all cases, the documents should be bound at once.

4. That, with reference to the conservation of written and printed documents of all kinds, both ancient and modern, it is necessary, not only to take precautions to protect them from all causes of deterioration or change arising from excessive heat, light, humidity, dryness, insects, etc., but also from those resulting from defective processes, as bad binding, stitching, etc.

5. That, henceforth, the practice should be discontinued of placing documents and printed records permanently on exhibition in museums, archives, libraries, etc., since permanent display is a leading factor in the premature destruction of such records; and that only temporary exhibitions should be authorized.

The committee of experts also resolved that a bibliographical summary of the past experiences and new discoveries should be compiled in a bulletin from time to time, and that this information should be placed before the authorities responsible for libraries and national archives, so that the attention of governments may be drawn to the necessity of taking advantage, in respect to documents for their archives, of the scientific and technical progress made in the preparation of papers and inks.

Care of Felts for Fine Paper Manufacture*

By Frank C. Ladd[1]

Abstract

The felt of a paper machine is a medium for conveying the wet paper from the wire on its travel over the machine to the driers.

It plays an important part in the extraction of water from the sheet and is a vital factor on the finished surface of the paper.

It must be constructed to protect the sheet surface and to conduct the extracted water through its structure, and discharge the water after it is squeezed out at the nip.

It must withstand the extreme speeds and be stout enough to turn, by friction contact, numerous rolls, as well as stand the gaff of being dragged over the suction boxes and felt cleaners, through which, a high vacuum is exerting a heavy pull to separate the water from the fibers.

A felt must be handled with exacting carefulness when received, both in avoiding injury to the woven mesh, and by preventing all possible dirt, grease, and foreign substances from coming in contact with it when in use.

The length of time it is on the machine is important, but the quality of the paper made, the amount of water extracted, and the continuous running of the machine are more important.

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Contribution of the TAPPI Paper Manufacture Committee.

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Starting the Felt

It is absolutely necessary from the time the felt is un-

wrapped to handle it with intelligent care. When it is put on the machine all grease, oil and dirt should be removed from its path; all possible care should be used not to draw the surface of the felt over the journals of rolls, edges of sharp pipes, ends or corners of bearing-boxes, roll-ends, or other machine parts. If oils or greases get on the felt, they should be removed at once with carbon tetrachloride or kerosene, but never with a wire brush. As soon as the felt is unwrapped the felt direction should be determined. The felt is woven, dried, wrapped and folded with due regard for this nap direction and should not be ignored when it is put on the machine to run. The nap lays back from the travel direction. The seam line should be started and kept straight across the machine. This may be influenced by roll crown, uneven tension as caused by rolls out of alignment, uneven temperature of water or steam, by playing the hose water with force unevenly across the face of the felt, untrue rolls or roll surfaces affected by cracks, rot, warps, leaders or worms of heavy felt, jacket, or belting.

It is necessary to use care in wetting and shrinking the felt. To do this, it should be started slowly, under no tension, with an even spray of water with no force at first, increasing later, completely across the face and surface, to enable all parts to be wet about the same time, wetting the center first but avoiding large or small ponds of water to bag the felt down in any one place. All parts of the felt should pass under the roll and be squeezed out. To hasten the wetting, after the felt has been run a few minutes in this way, a penetrating, cleaning oil, any one of several now on the market, may be applied. Usually the application is at the nip. This will save a great deal of time and will thoroughly wet every part of the felt. It is a good idea to measure the course of travel of the felt. This may be done in various ways but it must be determined that both edges and center travel the same distance. The seam is always a good indicator. If the seam travels ahead at any one point, it is almost always true that it is getting more strain or tension at that point. Avoid water dropping from showers, both when running and when the machine is idle. Never let the stock run from the wire to first felt when the suction boxes under the wire are not working properly delivering the very wet stock to the felt. If this goes under the press roll it will completely fill the felt openings in a very short time and this is hard to get out.

Press Rolls

The three important factors in a press are pressure at the nip, roll resilience and roll diameter.

The slow speed of fine paper machines makes the speed of lesser importance but the felt must be of such construction that the water will readily be received and conducted through the weave and be discharged at the roll surface below. It is necessary on fast machines to provide suction boxes to render the felt as dry as possible as it enters the nip.

We like, for our fine papers, the density of our bottom rubber roll, on the first press to have a plastometer value ranging from 36 to 44, and on the second press, from 28 to 32. This density will vary but I believe that in making fine papers we should not use the harsh hard rolls even though the hard rolls may deliver a drier sheet. The crown and the density of the roll as well as the diameter and construction must be arrived at by due consideration of the quality of paper made and the size of the machine. The roll surface should be inspected often to clear the accumulations that are bound to collect. Often an accumulation occurs on the roll-ends which will offset the crown somewhat. The top and bottom rolls must be in perfect alignment. The rolls must be separated when the machine is idle to avoid pressure in any one place. The amount of pressure exerted on the presses is entirely governed by the quality of the paper made. Practice and experience in actual paper making provides the law to govern. Weights and levers should be kept in good condition to render an equal amount of pressure across the entire face of the roll. Press-rolls should turn in anti-friction bearings. If only one roll can have this type of bearings, the top roll, which is driven by contact through the felt, certainly should be so equipped. With the roll turning easily there is less drag and less felt strain. A valuable function of the presses is not only to remove water and press the sheet to render the surface smoother but also to press the fibers into a more compact and firmer formed sheet.

Felt Rolls

There should be as few felt rolls as possible. Some of the new, wide, fast machines, I am told, give less wear on the felt than older machines of less width and slower speed, due to a lesser amount of pull needed to turn the rolls. All rolls should turn in anti-friction bearings. It has been pointed out that double life has been accomplished, even after cutting the felt in half, by using rolls of larger diameter that are easily turned, placed with due regard for felt direction and with no unnecessary rolls. It is recommended that sharp return direction be avoided and that the roll surface be smooth. Rolls should be of such material that will avoid rotting, cracking, swelling and warping. Worms are hard on felt life and should be made, when possible, with smooth corners or edges, and free from tacks or sharp materials. With these necessary emergencies all care must be used to avoid harsh wearing contact with the soft felt. Worms that are cast or machined on metal or rubber rolls are greatly to be desired because they can be made absolutely smooth and free from sharp edges. Rolls should be inspected for accumulated substance and cleared periodically.

Water Removal

To get the best results at all times, a felt conditioner is almost a necessity. When we consider the inevitable limitations of human nature, we better realize that a felt, continuously cleaned mechanically, eliminates the personal equation.

It is necessary to keep the stuff and sizing uniformly out of the felt. Frequent whippings or roping will help but the machine has to be made non-productive during this cleaning time. Stuff leaves the head-box at approximately one-half of one per cent fiber. The cost of the water removed at the wire is nil compared with the cost at the felt and it is removed at the felt at one-tenth of the cost of removal at the driers. By computing the amount of water removed in a days run from the paper it will be readily realized that as far as can be accomplished without harm to quality, the sooner the water is removed in its flow over the machine, the better. If the felts fail to take out their full share of the water, it costs heavily. If they are filled up, they do not extract water; this retards water removal and jeopardizes quality. The temperature of the water is a factor, but the big thing is the condition of the felt. If it is dirty, filled up, or worn out, it will not do its full work; its life is over if it is not doing its full share of work, however good it looks. If it is not cleaned or taken off, someone pays for it. No felt should be discarded, however, while it is functioning properly. The amount of water

the felt is removing from the sheet can easily be measured by running the water into a pail or barrel. It may also be tested by finding out the amount of water left in the sheet as it leaves the last felt press. Papers seldom get below 56 per cent wet at this point but often are above 65 per cent wet. Paper made of slow stock with high Ph, and low total acidity will give up the water very reluctantly, while free stock with low Ph, and high total acidity tend to give it up more easily.

Conditioners

When a conditioner stops and continues to drag on the felt at any one place, it does harm, in more than one way. When it works properly it is a splendid asset to most machine felts.

With a felt conditioner on the first press, it is often unnecessary on the second, for the first does its work thoroughly and there is not as much for the second felt to do, consequently, it fills so much less quickly. For fine papers this is sometimes true, but felts should be kept in as near their original condition as possible. When running a full day they cannot be in as good shape at the end of a twenty-four hour run as when they started, and the quality of the paper made is affected, as well as the cost.

The conditioner should not be used more than is necessary to keep the felt in good condition. Obviously it is not necessary to start a conditioner to work at once on a new felt. Several hours may pass before the conditioner is started and then as soon as it has passed over the felt long enough to sufficiently clean it, it should be stopped.

Felt Washing

The whipper is used to loosen and thrash out the particles which become imbedded in the felt openings. These whippers should revolve about 125 r.p.m. The surface of the whipper that comes in contact with the felt should be smooth and should be crowned to avoid wearing the nap from the edges of the felt. It should be placed in the center, between the most widely separated rolls, at least twenty-four inches each side. Fifteen to twenty minutes of active whipping is ample; too much whipping is bad. Apply showers with force, on back of felt before it is whipped and on the front, after it is whipped. The use of felt oils to clean saves much time. When making small orders it may be possible, when the machine is down only for a few minutes, to improve the felt materially by the use of these cleaning oils.

Washing Off the Machine

Felts cleaned by continuous conditioners are usually not washed off the machine, with any idea of being put back on the machine; felts to be returned must be cleaned in water that is not over 110 deg. F. Numerous soaps and oils are on the market that render the nap as soft and the felt as pliable as a new felt. Too much alkali must be avoided as well as too much time and too much heat. Our great trouble with washing felts in this way is that the soaps are not always thoroughly rinsed out. Great care should be used that the felt is free from all soaps, oils, or washing powder. It should be rinsed in a soft warm water until all foreign substances are washed out.

Mistaken Notions

The number of kinds of felts used to do practically the same job, in different mills, or on different machines in the same mill, is appalling. It may never be practical to standardize felts by the grade of paper made. If all the mistaken notions could be cleared away, and this will be done gradually, it would be a far more simple job. The felt manufacturers are more standardized in classification and are somewhat ahead of other manufacturers in this respect, but to standardize on sizes and in structure of felts, seems now impossible.

Standardization

The first press felts for common papers, such as news, hanging, kraft, and so forth, are made coarse and open, and have strength. They are called "common wet" felts and are usually woven with a plain (square) weave to give the greatest degree of firmness and openness.

The next finer felt is the "fine wet." The weave most often used is the broken twill, which is a combination of a plain and straight twill weave. The sateen weave is also used occasionally, and the plain weave very rarely.

The finest first felts are called "superfine wet," and are made from finer wools and finer yarns than either the common or fine wet felts. Weaves used are broken twill, sateen, and a special built up weave. This latter is two-sided, and both sides of the fabric have the same surface as in the case of the smooth side of the sateen weave. These felts meet the requirements of good finish on fine papers.

The second and third felts are either "fine press," "superfine press," "superplate press," or "superplate press BB," the fineness increasing in the order named.

Fine press felts are made with a broken twill or sateen weaves, and are used for common papers and many grades of board.

Superfine press felts are made with a broken twill, sateen, or special built up weave, and present a surface providing very good finish on a great many grades of paper. The very finest finish is obtained from superplate, and superplate BB felts. These are made from the very finest of wools and with straight twill, sateen, or special built up weaves.

The sateen weave is one-sided. That is, the warp yarn shows principally on one side of the felt, while the filling yarn is mostly on the other side. The warp yarns, although they may be fine, are hard in order to provide strength, while the filling yarns are usually soft in order to provide good finish. In general this is true of nearly all felts, but the sateen weave, by bringing a large proportion to one side, gives a very high degree of finish and retains the characteristics of good water removal.

The following table will show the extreme difference in the felts listed. These are taken from no special felts but simply to show the contrast. They indicate but four felts out of many hundred different kinds and weaves.

TABLE I

(All given weight figures refer to finished felts)

Suitable for Press	Kind	Warp yarns per inch, Number of Strands	Fill Yarns per inch, Number of Strands	Weights of yarn in grams per 100 yds. Warp Max.	Warp Min.	Filler Max.	Filler Min.	Finish Nap Singed Regular	Wt. in oz. per sq. ft.	Weave
1st	News	22	10	45	32	98	76	Nap	2.05 2.4	Plain or Square
1st	Super Wet	28	23	13	9.5	54	21.9	Nap	1.4 2.35	Broken twill & Sateen
2nd	Plate Press	40	63	13	7.8	28	13.5	Hvy. Nap	1.9 2.67	Broken twill & Sateen
ord	BB Plate	45	115	13	9.5	36	16	Hvy. Nap	2.75 3.2	Sateen or Special

Some fine paper mills use a first press felt on the first press when new, and afterward when somewhat worn transfer it to the second press. This simply shows how flexible a felt may be in some mills. Other mills are extremely careful to use only the open felts on the first press and much finer felts on the second press, all making what would be called relatively the same type of paper.

Conclusions

The felts are an important part of the paper machine clothing. Great care should be used in selecting the proper type of felt for each kind of paper and for each press.

The felts should be handled with great care at all times. They should be clean to do the best work.

It is possible to group felts of certain weaves, of a count within restricted limitations within a given strand or yarn weight area, into classifications.

The value of any standardization of this kind is problematical.

This has been given a good deal of thought by felt manufacturers. They find that each mill and each machine gives individual problems due to types of furnishes used and the varying water conditions at mills in different locations. It seems that papers that appear to be similar do not run successfully on the same type of felts in different mills. This very probably will always be more or less true.

One Per Cent Caustic Soda Solubility of Wood*

Tentative Standard Method of the Technical Association of the Pulp and Paper Industry

This method determines the resistance of a wood sample to solution by hot dilute alkali. Its most valuable application to date is in determining the degree of fungus decay which has taken place in a given wood sample. As the wood decays the percentage of alkali soluble material increases. This increase is proportional to the decrease in pulp yield caused by the decay. The analytical data available is too limited to permit the establishment of any accurate relation between these two factors. Because of the wide variation in pulp yield from different trees or different sticks, due to variation in wood density, the determination of the 1 per cent alkali solubility, is of use in indicating yields only when made on average samples which are a composite of a large number of sticks of the same species. The method is also applicable to the testing of pulps, except of course, that the sample is prepared in a different manner.

I. Apparatus

The water bath used in this determination must be designed so that the temperature of the material during treatment is uniformly maintained at 97 to 100 deg. C. and when a new bath is used the temperature should be checked to insure the use of proper conditions. The type of bath recommended is one that is covered and that has holes in the top of such size that beakers may be set down in the bath until they are supported by the flared rim of the beakers. The top of the beaker should be nearly level with the cover of the bath. By using this type of bath the sides of the beakers are entirely surrounded by boiling water or steam. The water level in the bath should be maintained at a level above the level of the liquid in the beakers.

The beakers used are the tall form, 200 cc. pyrex beakers. Fritted glass crucibles (porosity 5-7) are recommended for filtering the treated sawdust, though alundum crucibles of a similar porosity are also suitable.

II. Test Sample

A sawdust sample which is representative of the wood being tested is taken and screened with 40 and 60 mesh standard sieves. The portion retained on the 40 mesh sieve is ground with a disk mill and rescreened. This operation is repeated until all of the sawdust passes the 40 mesh screen. That which is retained on the 60 mesh screen is used for the test sample and that passing the 60 mesh, discarded. In grinding, care must be taken to not adjust the disks so close together that appreciable heating of the sawdust occurs. In case chip samples are taken they can be first ground with a hammer mill or other coarse grinder and then ground with the disk mill. The screened sample of sawdust is placed in an air tight container and the moisture content determined by the standard procedure.

III. Procedure

Two samples of the screened sawdust each equal to 2 grams of oven dry $\pm$ .1 gram are accurately weighed on an analytical balance. To each sample in a 200 cc. tall form beaker, is added 100 cc. of 1 per cent NaOH measured with a pipette. Before use the concentration of the NaOH solution is measured by titration and adjusted to exactly 1 per cent. After stirring well the beakers are placed in the water bath, which must be boiling steadily, and covered with watch glasses. They are left in the bath for exactly one hour. The contents are stirred three times, at 10, 15 and 25 minutes, after being placed in the bath. At the end of the one hour period the contents of each beaker is filtered by suction on a tared crucible. The sawdust is first briefly washed with hot distilled water, then with 50 cc. of 10 per cent acetic acid and then thoroughly washed with hot distilled water. The crucible and contents are dried to constant weight at 105 deg. C. cooled in a dessicator and weighed in a stoppered weighing bottle.

The results shall be reported as percentage by oven dry weight soluble.

IV. Accuracy

The results of duplicate tests should never vary by more than 5 per cent of the average result, and for accurate work it is possible to keep the deviation below 2 per cent.

V. Additional Information

This method is essentially the same as that used by the Forest Products Laboratory and other investigators, except that a more carefully specified method of heating is used. The results are usually somewhat higher than obtained by the methods previously used because by the old method of heating the temperature of the material during treatment was often below 90 deg. C.

* Presented at the annual meeting of the Technical Association of the Pulp and Paper Industry, New York, N. Y., February 13-16, 1933.
This method has been approved by the TAPPI Fibrous Materials Testing Committee. Send suggestions and criticisms to M. A. Youtz, Northern Paper Mills, Green Bay, Wis.

Pulp and Paper Industry Literature Review

Abstracts of Articles and Patents Compiled by the Abstracts and Bibliography Committee of the Technical Association of the Pulp and Paper Industry, A. Papineau-Couture, John F. Ohlson, C. E. Peterson and Clarence J. West, Chairman

Copies of United States Patents can be obtained from the United States Patent Office, Washingon, D. C., for 10 cents each. Send currency, not stamps.

Mechanical Process

Arrangement for Grind Stones Made from Artificial Stone. Firma A. Eie, Oslo, & Firma Foss Smergelskivefabrik, Fettsund. Nor. pat. 51,014 (Feb 23, 1931).—Method for conducting the heat from the outer part of the stone to the inner.—J. F. O.

Method and Arrangement for the Regulation of Wood Grinders. Firma J. M. Voith, St. Polten. Aust. pat. 128, 676 (Feb. 15, 1932).—J. F. O.

Regulating Device for the Drive on Wood Grinders. Aktiengesellschaft Brown, Boveri & Cie. Baden, Switzerland. Ger. pat. 552,558 (June 26, 1931).—The invention concerns itself with a drive for a wood grinder, especially continuous grinders, with the feed of wood controlled by an electric motor, which has an electric regulating device for the grinding pressure and an oil pressure regulating device influenced by the main drive motor—J. F. O.

Arrangement for the Regulation of Wood Grinders. Allgemeine Elektricitats Gesellschaft, Berlin. Ger. pat. 560,848 (Oct. 18, 1930).—J. F. O.

Arrangement for the Regulation of the Load on Wood Grinders. Allgemeine Elektricitats Gesellschaft, Berlin. Ger. pat. 558,604 (May 30, 1931).—Addition to Ger. pat. 491,754.—J. F. O.

The Condition of the Forces in the Magazine of Wood of a Continuous Pulp Grinder. An answer to the article of the same title by Wunderlich. Papier-Fabr. 30, No. 33: 505-06 (Aug. 14, 1932).—Disscussion of the polemic over the "bridge" theory and the force of gravity theory as related to wood magazines of continuous pulp grinders.—J. F. O.

Alkaline Process

Process for the Recovery of Valuable Organic Products from Cellulose, Lignin or Materials Containing These Substances. I. G. Farbenindustrie A. G. Frankfurt a.M. Swed. pat. 73,807 (Feb. 19, 1929).—The material is heated under high pressure in the presence of hydrogenating catalysers.—J. F. O.

Process for the Preparation of Chlorine Lignin and its Alkali Salt. Oskar A. Muller, Zurich, Switzerland. Ger. pat. 550,729 (Feb. 10, 1929).—Addition to Ger. pat. 535,744.—The extract from the chlorination product is decomposed with concentrated alkali solution in excess and the alkali salt separating out is likewise decomposed with acid.—J. F. O.

Process for the Manufacture of Valuable Products from Vegetable Materials. Erik Rinman, Djursholm, Sweden. Ger. pat. 557,445 (Aug. 13, 1930).—The valuable products are obtained from the raw materials by cooking with solutions of barium or strontium hydroxide. According to the patent the cooking is carried out with solutions of one of these substances or a mixture of both so that after the cooking the alkalinity is at least 10 per cent, calculated as barium oxide, the resulting material is evaporated to dryness and subjected to dry distillation.—J. F. O.

Process for Making Alkaline, Waste Liquors from the Manufacture of Soda or Sulphate Pulp for the Purpose of Dry Distillation. Erik Rinman, Djursholm, Sweden. Ger. pat. 557,446 (May 23, 1930).—Addition to Ger. pat. 541,256.—The alkalization takes places by adding oxides of barium or strontium or mixtures of such oxides, or with oxides of calcium or magnesium, etc. in a pulverized form to the strongly concentrated warm waste liquor; so that a reaction takes place which makes the mass ready for the dry distillation.—J. F. O.

Process and Device for the Production of Pulp from Fiberous Plant Materials. Procedes Navarre, Lyon, France. Swed. pat. 74,576 (Oct. 29, 1928).—The material is treated with sodium hydroxide according to the counter current principle. Black liquor is used at first and then liquors with increasing amounts of sodium hydroxide and finally with fresh and colorless liquor, after which the material is washed with water which is free from salts of the alkaline earth metals.—J. F. O.

Process for the Manufacture of Solutions from Cellulose or Cellulose Compounds. Zellstofffabrik Waldhof, Mannheim. Nor. pat. 50,433 (Sept. 26, 1930).—A good bleachable soda or sulphate pulp is used as the starting product, which has been produced from only one kind of wood, i.e. well barked spruce wood.—J. F. O.

Process for the Preparation of Half Stock from Straw, Grasses and Similar Materials. Willi Schacht, Weimar. Ger. pat. 563,440 (Nov. 26, 1930).—One thousand kilograms of chopped up straw is cooked with 2,000 to 4,000 liters of cooking liquor which contains 20 kil. of caustic lime and about 10 kil. of soda and if necessary an addition of 20 to 30 kil. of very soluble alkali salts of inorganic or organic acids, with superheated steam in stationary or rotating digesters. The cooking is so carried out that in the end it shows a weak acid reaction. The digester is then relieved, blown and the fiberous mass is then treated in the usual manner.—J. F. O.

Union Between a Smelt Oven and the Rotating Soda Oven. Leif Gloersen, Pitgaranta. Finn. pat. 14,235 (Aug. 21, 1930).—J. F. O.

Sulphite Process

Sulphur Burner. Jerry W. Stevens. U. S. pat. 1,883,-063 (Oct. 18, 1932).—The burner consists of a relatively short horizontal cylindrical casing inside which is mounted a perforated horizontal cylindrical rotor on the outside surface of which is a helical fin which dips into the pool of molten sulphur in the bottom of the casing.—A. P.-C.

The Status of the Technology of Sulphite Circulation in September 1932. W. Abele, Koln. Wochbl. Papierfabr. 63, No. 40: 743-45 (Oct. 1, 1932).—The author first discusses the circulation of the liquor, its inception and the choice of the various systems. He recommends that the liquor be drawn from the upper part of the digester, that all the liquor should be circulated six times an hour and this circulation should be continued till the end of the cook. The liquor from the "calorisator" should be divided so that 70 per cent of it continually goes to the bottom of the digester and the remaining 30 per cent to the top. The circulation pump should be arranged so that it can be used for filling the digester with the cooking liquor and also for the entrance of wash water.—J. F. O.

Process and Arrangement for the Production of a Cooking Acid of High Sulphur Dioxide Content for the Manufacture of Pulp According to the Sulphite Process. Mo. och Domsjo Aktiebolaget, Oernskoldsvik, Sweden. Ger. pat. 556,002 (Sept. 3, 1930).—The raw acid enriched in the usual manner with the relief gases from the digester is heated in an heat exchange apparatus and if desired it may be introduced into another apparatus where it comes in contact with other acid.—J. F. O.

Recovery of Sulphur Dioxide from Gases Low in Sulphur Dioxide Content. I. G. Farbenindustrie Akt. Ges. Ger. pat. 564,058 (March 28, 1931).—The gas is absorbed in a liquid under pressure, the pressure being subsequently relieved.—J. F. O.

Process for the Recovery of Gas Mixtures with a High Percentage of Sulphur Dioxide and Air from Oven Gases or Other Gases Containing SO_2 by Pressure Absorption of Sulphur Dioxide with Water. M. Schroder, Berlin. Swed. pat. 74,723 (May 9, 1930).—J. F. O.

Process for the Quantitative Separation of Sulphur Trioxide and Sulphur Dioxide. Allgemeine Elecktriciitats Gesellschaft, Berlin. Ger. pat. 553,234 (July 3, 1930).—The sulphur trioxide is reduced to sulphur dioxide. The idea of the invention is to conduct the gases containing sulphur dioxide through sulphur or selinium sulphide.—J. F. O.

Process for the Recovery of Sulphur Dioxide. I. G. Farbenindustrie Akt. Ges. Frankfurt a.M. Ger. pat. 553,910 (Dec. 17, 1930).—The invention concerns itself with the recovery of sulphur dioxide contained in gas mixtures by passing the gases through an absorbent and then driving the sulphur dioxide out of this material, carrying this out as a continuous process. An aqueous solution of salts is used as the absorbent, the quantity of water used is such that a homogeneous solution remains for the duration of the absorption.—J. F. O.

Process for the Decomposition of Wood Fibers According to the Sulphite Process. Walter Seidel & Rudolf Fingado, Wiesdorf. Ger. pat. 552,906 (Jan. 26, 1929).—With the acid sulphite decomposition of the wood it was found that the cooking time can be shortened a great amount without injury to the product; if during the course of the cooking oxygen or gases containing oxygen are allowed to react on the digester contents. To cook 350 kilograms of wood with calcium bisulphite liquor, and with the usual circulation of the liquor, 16¼ hours are required to attain a certain degree of decomposition, but if oxygen from a bomb is introduced during the cooking, the same degree of decomposition is attained in 4¼ hours.—J. F. O.

Process for the Manufacture of Half Stock from Wood for the Production of Paper, Board and Similar Materials. Karl Weisshuhn & Sohne, Troppau, Czechoslovakia. Aust. pat. 126,587 (Sept. 15, 1931).—The logs are first subjected to a maximum temperature of 150 deg. C. by the use of hot air and immediately thereafter they are treated with reducing chemicals such as sodium bisulphite, at a concentration of not more than 20 per cent, then subjected to steam at 1 to 5 atmospheres and finally ground in wood grinders of the usual make.—J. F. O.

Process for the Manufacture of Pulp for the Chemical Industries, Especially for the Production of Cellulose Solutions and Cellulose Compounds. Vereinigte Glanzstoff Fabriken A. G. Wuppertal. Ger. pat. 553,840 (Dec. 14, 1928).—During the course of the manufacture of the pulp, such means are used, namely by oxidation or the action of acids, that the pulp becomes so strongly decomposed that a copper viscosity of under 8 units, preferably under 6 units, is obtained. The stock is freed from adhering hemicelluloses by alkaline means. For example, 190 kilograms of spruce wood in the form of chips and having a moisture content of 20 per cent, is cooked by the direct process with 800 liters of acid of 4 per cent total and 1.2 per cent combined. It is then cooked, without relieving and without regard to the digester pressure, at an end temperature of 130 deg. C., until a sample tests 4 units of viscosity. The stock is then carefully bleached, treated with 10 times the quantity of 10 per cent sodium hydroxide and then thoroughly washed.—J. F. O.

Process for the Manufacture of Sulphite Pulp. Patenaktiebolaget Grondal Ramen, Stockholm, Sweden. Ger. pat. 564,738 (Feb. 5, 1931).—The raw material is cooked in two stages. In the first stage a solution of alkali bisulphite or a neutral or acid reacting mixture of alkali bisulphite and alkali sulphite which does not contain sulphurous acid, are used. A sulphite solution is then used to complete the cook to which the necessary amounts of free sulphurous acid are added.—J. F. O.

Process for the Manufacture of Deciduous Wood Pulp for Artificial Fibers and Cellulose Derivatives. I. G. Farbenindustrie Akt. Ges. Frankfurt a.M. Aust. pat. 129,779 (April 15, 1932).—Deciduous wood, especially beech wood, is cooked according to the sulphite process, and then subjected to an alkaline purifying process. According to claim number 2, the purification takes place in the cold with 4 to 10 per cent alkali liquor.—J. F. O.

Process and Arrangement for the Manufacture of Sulphite Pulp. C. A. Gejer, Skoghall. Swed. pat. 74,897 (Aug. 22, 1927).—Method in which the cooking liquor is changed in the digester during the cooking process.—J. F. O.

Process for the Production of Sulphite Pulp. I. G. Farbenindustrie Akt. Ges. Frankfurt a.M. Ger. pat. 554,747 (July 16, 1929).—Addition to Ger. pat. 527,950.—After the wood has been cooked for 4 hours at 110 deg. with a cooking acid of 5 per cent SO_2 and 1 per cent CaO and this acid removed, it is cooked to completion with 0.1 normal nitric acid for 5 to 12 hours at 140 deg.—J. F. O.

Process for the Manufacture of Sulphite Pulp. Patentaktiebolaget Grondal-Ramen, Stockholm. Ger. pat. 554,826 (April 16, 1930).—The invention concerns itself with the production of sulphite pulp from chipped wood under the use of waste liquors by drenching with a solution of sulphurous acid alkali salt, separation of the excess solution and cooking according to the sulphite process by the use of a cooking liquor which contains free sulphur dioxide.—J. F. O.

Arrangement for Sulphite Pulp Digesters with Forced Circulation of the Liquor in the Digester. Einar Morterud, Torderod, Norway. Czech. pat. 39,533.—The circulation pipes are within the digester and the inlet and outlet openings which lead to the circulation pump can either be placed in the wall of the digester itself or they can connect directly with the circulation pump lying within the digester.—J. F. O.

Raw Materials

General Considerations of the Selection, Treatment and Use of Esparto in Paper Making. D.C.M.G.I.P. Papeterie 54: 930-934, 998-1002, 1042-1047, 1118-1122 (Sept. 10, 25, Oct. 10, 25, 1932).—A general description and discussion.—A. P.-C.

Methods for the Production of Cotton Linters and the Requisite Installations. I. Lipovskii. Bum. Prom. 11, No. 7: 49-51 (1932); C. A. 27: 840.—The existing practice and equipment for delinting cotton and utilization of the linters are discussed.—C. J. W.

CONSTRUCTION NEWS

A Summary of Vital Facts Regarding Construction, Finances and Operation of Paper Mills

Construction News

Erie, Pa.—The Hammermill Paper Company, East Lake road, has approved plans for new two-story addition to mill and will begin work at early date. It is reported to cost over $100,000, with equipment. General building contract has been let to the Henry Shenk Company, Twelfth street, Erie.

Brooklyn, N. Y.—The Futuristic Paper Box Company, Inc., recently organized with capital of $19,100 by Anthony Domenico, 8535 112th street, Richmond Hill, N. Y., and associates, plans operation of local plant for manufacture of paper boxes and containers.

Chicago, Ill.—The Vortex Manufacturing Company, 421 North Western avenue, manufacturer of paper cups, etc., has adopted a capacity schedule in all departments, and every machine is running full for first time in about two years. It is expected to hold to this basis for an indefinite time.

Montgomery, Ala.—The Ordway Paper Company, Anniston, Ala., has leased a building at 129 Coosa street, Montgomery, and will occupy at once for new storage and distributing plant, removing from Anniston. The company will operate in the future as the Montgomery Paper Company. C. L. Darby is secretary and treasurer.

Augusta, Me.—The Cushnoc Operating Company, recently chartered with capital of $50,000, under state laws, is understood to have arranged for lease of the local mill of the Cushnoc Paper Corporation, where operations recently were resumed after an extended curtailment, as reported in these columns. It is said that the lease covers a term of years. The leasing company will concentrate production on news print and proposes large output. Horace A. Sheesly is president of new company, and Wilfred E. Hall, treasurer.

Holyoke, Mass.—The United Paper Company, 46 Park street, is reported planning early rebuilding of portion of plant, recently damaged with loss estimated over $50,000, including equipment and stock.

Rome, Ga.—The Tubize Chatillon Corporation, Rome, manufacturer of cellulose rayon products, is having plans drawn by J. E. Sirrine & Co., Greenville, S. C., architects and engineers, for a new addition to mill, primarily for expansion in the viscose division. New unit is reported to cost over $350,000, with machinery. It is proposed to begin superstructure at early date. Headquarters are at 2 Park avenue, New York.

East Pepperell, Mass.—The Nashua River Paper Company is giving employment to about 250 persons in different departments, with increased working schedule. Wages at the mill recently were advanced 10 per cent.

Piercefield, N. Y.—The International Paper Company has resumed operations at its Piercefield mill, following shut-down since last spring. About 150 persons have been recalled in different departments, and it is expected to advance this quota by about 50 additional workers at early date.

Philadelphia, Pa.—The Cherry Paper Stock Company has leased the entire four-story industrial building at 619 Cherry street, and will occupy for local headquarters, storage and distribution.

Brownville, N. Y.—The Philemon Creek Paper Company, Inc., has been organized by local interests with capital of $200,000. It is understood that the company will take over a mill at this place for manufacture of a new line of paper goods. The company is represented by D. Eaton Alvord, Onondaga County Savings Bank Building, Syracuse, N. Y., an attorney. Lloyd M. Withers, 107 Dewittshire road, Dewitt, N. Y., is one of the incorporators.

Greenfield, Mass.—The old paper mill of the International Paper Company at Factory Hollow, near Greenfield, was destroyed by fire recently. No official estimate of loss has been announced.

Gardiner, Me.—The S. D. Warren Company, Boston, Mass., is now giving employment to more than 2000 operatives at its mills at Gardiner and Westbrook, Me. The company recently advanced wages 11 per cent at the plants.

New York, N. Y.—The Vitalitone Impervious Container Corporation has been organized by Leonard Blauner, 272 West 90th street, and associates, with capital of $300,000, to operate a local plant for the manufacture of paper boxes and containers, as well as paper tubes and allied specialties. Joseph Peist, 3197 Decatur avenue, Bronx, is one of the organizers of new company.

Fredericksburg, Va.—The Sylvania Industrial Corporation, manufacturer of transparent wrapping materials, is running on a 24-hour production schedule, three shifts of 8 hours each. The plant has recently added about 60 men in different departments, granting a 5 per cent wage increase.

Rochester, N. Y.—Fire recently destroyed a portion of plant of the Paper Mills Supply Company, 93 North Water street. An official estimate of loss has not been announced. It is proposed to rebuild at early date.

Newton Falls, N. Y.—The Newton Falls Paper Company has adopted a capacity schedule at its mill, giving employment to about 300 men in all departments. The second of the two paper-making machines at the plant was recently placed in service, following shut-down for about 17 months.

Grand Falls, N. F.—The Anglo-Newfoundland Development Company, Ltd., with mills at Grand Falls and Bishop's Falls, N. F., for pulp and paper production, is said to have plans under way for a large paper mill project in this same district, consisting of new production unit for news print. Plant will comprise a number of buildings and

is reported to cost over $5,000,000, with machinery. It is understood that output will be used primarily for the "London Daily Mail," London, England. The Anglo-Newfoundland company is arranging for a bond issue in London, totaling about 1,750,000 pounds (approximately $8,250,000), proceeds to be used in part for proposed mill.

New Companies, Etc.

New York, N. Y.—The F. H. von Ullrich Paper Corporation has been chartered with capital of 100 shares of stock, no par value, to deal in paper products of various kinds. The company is headed by F. H. von Ullrich, and will be represented by George Weisbrod, 521 Fifth avenue, New York, attorney.

Louisville, Ky.—The Palmer Paper Products Company has been organized by L. Palmer Ball and T. H. Ford, both of Louisville, to manufacture and deal in paper goods of various kinds.

Cincinnati, Ohio—The Advance Decalcomania Company has been organized with capital of 250 shares of stock, no par value, to manufacture and deal in decalcomania transfers. It will take over and operate company of same name at 1917 Vine street. The incorporators include P. W. Lewis and Sigrid Little.

New York, N. Y.—The Abeco Envelope Company, Inc., has been incorporated with capital of $5000, to manufacture envelopes and kindred paper products. New company is represented by Samuel A. Hirshowitz, 11 West Forty-second street, attorney.

New York, N. Y.—The Metropolitan Paper and Bag Corporation has been incorporated with a capital of $225,000, preferred stock, and 200 shares of common stock, no par value, to manufacture and deal in paper bags and containers. The incorporators are William Salzer, 405 Lexington avenue, and Harold Kushel, 227 Sixth avenue, both New York.

Camden, N. J.—The Camden Glazed Paper Company, Ninth and Bally streets, manufacturer of paper specialties, has filed a voluntary petition in bankruptcy, listing liabilities at $14,447.77 and assets, $11,665.45. William H. Funk is president.

Walker Goulard Plehn Co. Has Outing

The Walker Goulard Plehn Company held its annual outing, Saturday, July 15, 1933, at Narragansett Inn, Lindenhurst, L. I. The combination of fair weather, good food and lots of fun, all contributed to its huge success.

In the morning various field games were held and prizes were won by: A. C. Schumann, Harold Burke, Harry Marz, Miss Margaret Burke, and Mrs. James Burke, Jr. The door prize was won by Mrs. Harry Marz.

After an excellent shore dinner, short talks were given by Messrs. Goulard, Plehn and Walker. The feature of the afternoon festivities was a baseball game between the single and the married men, which was won by the former 12 to 10. Going into the 9th inning, the single men were ahead 12 to 3, they then put on a burlesque act on the ball field, that, had it been witnessed by a theatrical producer, would have surely resulted in the loss of some promising material to the paper business. They climaxed the game with a triple play.

After supper, there was dancing, and then a breaking up of the party, all going home imbued with but two thoughts; first, that the friendly spirit engendered by the outing will go far toward keeping Walker Goulard Plehn in the first rank of the paper jobbing business and secondly that this outing was the best that any of them ever attended.

Obituary

Wilbur L. Wright

[FROM OUR REGULAR CORRESPONDENT]

FULTON, N. Y., July 15, 1933.—Wilbur L. Wright, prominent manufacturer of this city, died at his summer home near here early this week following a brief illness. His death marked the passing of a pioneer in the milk bottle cap and paper container industry. He was a graduate of Georgetown Medical College but abandoned his professional career to launch the bottle cap industry. At the time of his death he was president of the Sealright Company, largest producers of milk bottle caps and paper containers in the world.

Fred C. Farnsworth

WATERTOWN, N. Y., July 15, 1933.—Fred C. Farnsworth, president and general manager of the Farnsworth Company, died early this week following an attack of heart disease. He was on a business trip when stricken and was rushed to the city hospital at Minneapolis where attempts to revive him failed. He also served as consulting engineer for several paper manufacturing concerns. When he left here several weeks ago he was apparently in good health and only recently communicated with officials at the local plant. The company of which he was the head came here recently from Conshohocken, Pa., where it operated for a number of years. The plant manufactures drying systems for paper machines which have a reputation of saving fuel and improving the quality of paper produced in industrial plants. His widow, two sons, and a daughter are the principal survivors .

James M. Larue

CINCINNATI, Ohio, July 15, 1933.—James Milton Larue, a former official of the Richardson Paper Company, died at his home here last week after a lingering illness. He was 79 years old. Mr. Larue retired several years ago, after half a century of continuous service with the Richardson company. He was a former councilman of Lockland, and had served for twelve years as trustee for Springfield Township. He was a Mason. A daughter, Mrs. Florence Kaufman, and a son, W. F. Larue, vice-president of the Gardner Richardson Company, survive.

Abitibi Increases Production

TORONTO, Ont., July 17, 1933.—A slight increase in production is noted by the Abitibi Pulp and Paper Company, head office Toronto, caused by large orders from the United States. "The production increase," said Vice-President L. R. Wilson, "is due to increased buying on the part of United States buyers who fear an upward trend in prices. One machine may be put into commission at Iroquois Falls." Mr. Wilson said he was not in a position to predict what prices would do and that it would be a hard matter to raise prices in the face of the present over-production.

C. T. Quirk Buys Controlling Interest

HOLYOKE, Mass., July 18, 1933.—Charles T. Quirk has bought out the controlling interest in the O'Connell-Quirk Paper Company of this city dealers in paper towels, toilet papers and other paper lines as well as twine and boxes. The present rooms on Main street will be retained. E. P. O'Connell will be store manager and Thomas E. Quirk, sales manager. The new proprietor has been connected with the concern for the past seven years.

IMPORTS OF PAPER AND PAPER STOCK

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING JULY 15, 1933

CIGARETTE PAPER

American Tobacco Co., Indep. Hall, Bordeaux, 450 cs.; Champagne Paper Corp., Indep. Hall, Bordeaux, 178 cs.; Champagne Paper Corp., Champlain, Havre, 600 cs.; Standard Products Corp., Champlain, Havre, 60 cs.; American Tobacco Co., Champlain, Havre, 100 cs.; American Tobacco Co., Manhattan, Havre, 250 cs.

WALL PAPER

Indep. Forwarding Co., Bremen, Bremen, 2 bls.; Herman & Co., Olympic, Southampton, 1 cs.; ——, Manhattan, Havre, 8 cs.; Schenker & Co., A. Ballin, Hamburg, 4 cs.

NEWS PRINT

Perkins Goodwin & Co., Stuttgart, Bremen, 100 rolls; Jay Madden Corp., Stuttgart, Bremen 131 rolls; Parsons & Whittemore, Inc., Drottningholm, Gothenburg, 95 rolls.

PRINTING PAPER

F. C. Strype, Breedyk, Rotterdam, 31 cs., 24 rolls; Ozalid Corp., Breedyk, Rotterdam, 22 cs.; F. C. Strype, A. Ballin, Hamburg, 28 cs.; Senefelder Co. Inc., A. Ballin, Hamburg, 9 cs.

WRAPPING PAPER

R. Wilson Paper Corp., Pennland, Antwerp, 9 cs.; Standard Products Corp., Pennland, Antwerp, 11 cs., 5 rolls; National City Bank, Traunstein, Bilbao, 30 bls.; Walker Goulard Plehn Co., A. Ballin, Hamburg, 2,566 rolls, 183 bls.; D. E. Bordner, A. Ballin, Hamburg, 2 bls.

PACKING PAPER

E. B. Baehr & Son, Manhattan, Havre, 2 cs.

FILTER MASS

A. Giese & Son, A. Ballin, Hamburg, 30 bls.; P. H. Petry & Co., A. Ballin, Hamburg, 200 bls.

FILTER PAPER

H. Reeve Angel & Co. Inc., Pennland, Antwerp, 40 bls., 3 cs.; H. Reeve Angel & Co. Inc., A. Merchant, London, 29 cs.; H. Reeve Angel & Co. Inc., Olympic, Southampton, 20 cs.; A. Giese & Son, Berengaria, Southampton, 104 bls.

DRAWING PAPER

H. Reeve Angel & Co. Inc., A. Merchant, London, 1 cs.

DRAWING BOARDS

H. Reeve Angel & Co. Inc., A. Merchant, London, 2 cs.

METAL COATED PAPER

K. Pauli Co., Stuttgart, Bremen, 22 cs.; National City Bank, Stuttgart, Bremen, 41 cs.; K. Pauli Co., A. Ballin, Hamburg, 5 cs.; Globe Shipping Co., A. Ballin, Hamburg, 29 cs.

SURFACE COATED PAPER

P. C. Zuhlke, Pennland, Antwerp, 12 cs.; Gevaert Co. of America, Pennland, Antwerp, 52 cs.

COATED PAPER

Chas. Happel, A. Ballin, Hamburg, 20 cs.

PHOTO PAPER

Medo Photo-Supply Co., Olympic, Southampton, 3 cs.; W. J. Byrnes, Berengaria, Southampton, 2 cs.; American Express Co., A. Ballin, Hamburg, 25 cs.

PARCHMENT PAPER

Dengelstedt & Co., Stuttgart, Bremen, 5 cs.

DECALCOMANIA PAPER

B. F. Drakenfeld & Co., Georgic, Liverpool, 12 cs. (simplex); B. F. Drakenfeld & Co., Georgic, Liverpool, 11 cs. (duplex).

DECALCOMANIAS

Sellers Transportation Co., Bremen, Bremen, 17 cs.

TISSUE PAPER

Moller Products Corp., Georgic, Liverpool, 8 cs.

WRITING PAPER

D. E. Bordner, A. Ballin, Hamburg, 1 cs.

ENVELOPES

Beckhard Simfred Co., A. Ballin, Hamburg, 2 cs.

GUMMED PAPER

Heemsoth Basse & Co., Bremen, Bremen, 11 cs.

WAFER PAPER

E. B. Baehr & Son, Breedyk, Rotterdam, 5 cs.

SILK PAPER

Van Oppen & Co., Exeter, Marseilles, 18 cs.

PAPER BAGS

J. B. Mast & Co., Pennland, Antwerp, 13 cs.

CARD BOARD

——, Stuttgart, Bremen, 55 cs.; Rohner Gehrig & Co., Champlain, Havre, 2 cs.; E. Dietzgen & Co., A. Merchant, London, 1 cs.

STRAW BOARDS

Resolute Paper Products Corp., Breedyk, Rotterdam, 204 pkgs.

MISCELLANEOUS PAPER

C. Steiner, Pennland, Antwerp, 13 cs.; Lunham & Reeve, Drottningholm, Gothenburg, 34 bls.; The Borregaard Co. Inc., Drottningholm, Gothenburg, 177 rolls; Walker Goulard Plehn Co., Drottningholm, Gothenburg, 84 bls.; E. H. Sergant & Co., Drottningholm, Gothenburg, 5 cs.; Japan Paper Co., N. Maersk, Kobe, 4 cs.; Corn Exchange Bank, Ryoyo Maru, Kobe, 4 cs.; Keller Dorian Paper Co., Champlain, Havre, 13 cs.; Keuffel & Esser Co., Manhattan, Hamburg, 18 cs., 26 rolls; C. Schleicher & Schull Co., Manhattan, Hamburg, 16 cs.; Walker Goulard Plehn Co., Manhattan, Hamburg, 2,566 rolls, 183 bls.; F. C. Strype, A. Ballin, Hamburg, 12 cs.

Rags, Baggings, etc.

——, Veragua, Cristobal, 21 bls. rags; E. J. Keller Co. Inc., E. Francqui, ——, 425 bls. rags; ——, E. Francqui, ——, 194 bls. rags; E. J. Keller Co. Inc., Indep. Hall, ——, 1,110 bls. rags; Castle & Overton, Inc., Indep. Hall, Bordeaux, 747 bls. rags; Castle & Overton, Inc., Indep. Hall, St. Nazaire, 222 bls. rags; G. W. Millar & Co., Indep. Hall, St. Nazaire, 125 bls. rags; J. Cohen Son Inc., Georgic, Liverpool, 14 bls. rags; Hoffman Lion Mills, Ryoyo Maru, Kobe, 130 bls. rags; Guaranty Trust Co., Ryoyo Maru, Kobe, 600 bls. bagging; Chase National Bank, A. Merchant, London, 24 bls. rags; —— A. Merchant, London, 48 bls. rags; E. J. Keller Co. Inc., Exeter, ——, 265 bls. tares; E. J. Keller Co. Inc., Exeter, ——, 427 bls. rags; ——, Exeter, Alexandria, 170 bls. rags; P. Berlowitz, Exeter, Alexandria, 180 bls. rags; ——, Cameronia, Glasgow, 29 bls. paper stock; ——, Cameronia, Glasgow, 68 bls. rags; C. Nelson, Cameronia, Glasgow, 58 bls. rags; Bank of N. Y. Trust Co., Western Prince, B. Ayres, 141 bls. old cottons; E. J. Keller Co. Inc., Waukegan, ——, 70 bls. bagging; J. Damato, Waukegan, Havre, 104 bls. cottons; Johns Manville Corp., Waukegan, Havre, 195 bls. rags; Darmstadt Scott & Courtney, Waukegan, Dunkirk, 183 bls. bagging; Castle & Overton Inc., Breedyk, Rotterdam, 84 bls. rags; Castle & Overton, Inc., Breedyk, Rotterdam, 51 bls. bagging.

Glue Stock, etc.

E. W. Hickey & Son, E. Francqui, Antwerp, 35 bls. glue stock; ——, A. Ballin, Hamburg, 47 bls. hide glue; ——, A. Ballin, Hamburg, 600 bags bone glue.

Old Rope

Irving Trust Co., Waukegan, Dunkirk, 194 rolls; Irving Trust Co., Waukegan, Havre, 72 rolls; Banco Coml Italiane Trust Co., Stuttgart, Bremen, 61 bls.; ——, Georgic, Liverpool, 136 coils; Bank of N. Y. Trust Co., A. Merchant, London, 53 coils.

Casein

Casein Manfg Co., Western Prince, B. Ayres, 3,061 bags; T. M. Duche & Sons, Western Prince, B. Ayres, 2,504 bags; Kalbfleisch Corp., Western Prince, B. Ayres, 584 bags; ——, Western Prince, B. Ayres; 417 bags; D. C. Andrews & Co., A. Ballin, Hamburg, 70 bags; Pacific National Bank, A. Ballin, Hamburg, 833 bags.

Wood Pulp

Johaneson Wales & Sparre, Inc., Drottningholm, Gothenburg, 150 bls. sulphite; E. M. Sergeant & Co., Drottningholm, Gothenburg, 748 bls. kraft soda pulp; Polarus Shipping Co., Keret, Guysboro, 1,110 cords pulpwood; Castle & Overton, Inc., Breedyk, Rotterdam, 1,198 bls. wood pulp; A. Giese & Son, Breedyk, Rotterdam, 100 bls. wood pulp; Price & Pierce, Ltd., Ottowa, Hernosand, 600 bls. sulphate, 100 tons; Price & Pierce, Ltd., Ottowa, Hernosand, 1,800 bls. mechanical, 300 tons; Castle & Overton, Inc., A. Ballin, Hamburg, 445 bls. wood pulp, 89 tons; N. Y. Trust Co., A. Ballin, Hamburg, 125 bls. wood pulp, 25 tons; ——, Pr. Harding, Hamburg, 164 bls. sulphite.

NEW LONDON IMPORTS

WEEK ENDING JULY 15, 1933

Price & Pierce, Ltd., Ottowa, Hernosand, 2,400 bls. sulphate, 400 tons.

PORTLAND IMPORTS

WEEK ENDING JULY 15, 1933

E. M. Sergeant & Co., Ottowa Hernosand, 1500 bls. sulphite, 250 tons.

BOSTON IMPORTS

WEEK ENDING JULY 15, 1933

——, Georgic, Liverpool, 78 bls. rags; Crocker Burbank Co., A. Merchant, London, 297 bls. rags; Brown Bros. Harriman & Co., A. Merchant, London, 70 bls. rags; International Purchasing Co., Exeter, Genoa, 166 coils old rope; International Purchasing Co., Breedyk, Rotterdam, 66 coils old rope; E. J. Keller Co. Inc., Capulin, ——, 340 bls. wood pulp.

PHILADELPHIA IMPORTS

WEEK ENDING JULY 15, 1933

Castle & Overton, Inc., Indep. Hall, Bordeaux, 83 bls. rags; ——, Indep. Hall, Bordeaux, 120 bls. rags; Phila. National Bank, Indep. Hall, Bordeaux, 52 bls. rags; H. G. Lichtenstein, Indep. Hall, Bordeaux, 110 lbs. rags; E. J. Keller Co. Inc., Indep. Hall, ——, 109 bls. rags; Goldman Sachs & Co., Indep. Hall, St. Nazaire, 348 bls. rags; E. Mayer, Indep. Hall, St. Nazaire, 249 bls. rags; Castle & Overton, Inc., Indep. Hall, St. Nazaire, 232 bls. rags; Corn Exchange Bank Trust Co., Breedyk, Rotterdam, 26 cs. ivory boards; P. Berlowitz, Breedyk, Rotterdam, 175 bls. old cottons; State Chemical Co., Breedyk, Rotterdam, 300 bags wood flour; Phila. National Bank, Breedyk, Rotterdam, 342 bls. rags; ——, Breedyk, Rotterdam, 237 bls. rags; E. M. Sergeant & Co., Ottowa, Hernosand, 1,650 bls. sulphite, 275 tons.

CAMDEN IMPORTS

WEEK ENDING JULY 15, 1933

Brown Bros. Harriman & Co., Ottowa, Hernosand, 6,000 bls. sulphate, 1,000 tons.

BALTIMORE IMPORTS

WEEK ENDING JULY 15, 1933

Congoleum Nairn Co., Indep. Hall, Bordeaux, 2,842 bls. rags; Congoleum Nairn Co., Indep. Hall, St. Nazaire, 1,819 bls. rags; National City Bank, Breedyk, Rotterdam, 982 bls. rags; A. Brown & Sons, Breedyk, Rotterdam, 113 bls. rags; Brown Bros. Harriman & Co., Breedyk, Rotterdam, 84 bls. paper stock; Castle & Overton, Inc., Breedyk, Rotterdam, 580 bls. wood pulp; Congoleum Nairn Co., Waukegan, Havre, 1,438 bls. rags; Congoleum Nairn Co., Waukegan, Dunkirk, 1,356 bls. rags; Price & Pierce, Ltd., Ottowa, Hernosand, 2,070 bls. sulphite, 345 tons; Price & Pierce, Ltd., Ottowa, Hernosand, 1,800 bls. mechanical pulp, 300 tons; Price & Pierce, Ltd., Ottowa, Hernosand, 540 bls. wood pulp, 90 tons; E. J. Keller Co. Inc., City of Newport News, ——, 336 bls. wood pulp.

NORFOLK IMPORTS

WEEK ENDING JULY 15, 1933

R. J. Reynolds Tobacco Co., Indep. Hall, St. Nazaire, 101 cs. cigarette paper; Carolina Bagging Co., N. Maersk, Kobe, 400 bls. bagging; Chase National Bank, N. Maersk, Kobe, 400 bls. bagging; Chase National Bank, Ryoyo Maru, Kobe, 2,200 bls. bagging; N. Y. Trust Co., Waukegan, Havre, 97 bls. bagging.

SAVANNAH IMPORTS

WEEK ENDING JULY 15, 1933

Manufacturers Trust Co., Hokuroko Maru, ——, 205 bls. bagging; 1st Natl Bank of Boston, N. Maersk, Shanghai, 500 bls. bagging.

New York Market Review

Office of the PAPER TRADE JOURNAL,
Wednesday, July 19, 1933.

Sentiment in the local paper market continues optimistic. Demand for the various standard grades of paper is quite active for the time of year. Sales forces of the leading paper organizations look for continued activity. Prices remain steady to firm.

Announcement of the code adopted by the news print paper industry under the National Industrial Recovery Act aroused great interest. Hopes are freely expressed that this action will lead to general improvement and will result in stabilizing the market on a sounder basis.

Operations in the paper board market are being maintained at capacity. Demand for box board is persistent and prices continue firm. The fine paper market is more buoyant than for some time past. Tissues are moving freely. The coarse paper market is sharing the general improvement.

Mechanical Pulp

Production of ground wood pulp is proceeding in sufficient volume to take care of current requirements, although accumulations are not excessive. Demand for both domestic and imported mechanical pulp is satisfactory. Prices are holding up well.

Chemical Pulp

Further advances were reported in the chemical pulp market. Imported bleached sulphite is now quoted at from $2.50 to $2.75 and easy bleaching at from $1.85 to $2.00, on dock, Atlantic ports. Domestic and Canadian bleached sulphite is quoted at from $2.75 to $3.00, f.o.b. pulp mill.

Old Rope and Bagging

The old rope market is exhibiting a strong undertone. Domestic old manila rope is firm, while imported old manila rope is inclined to advance, due to weakness of the dollar. Small mixed rope is steady. The bagging market is moderately active. Gunny and scrap are moving in fair volume.

Rags

Steadiness prevails in the domestic rag market. Demand for cotton cuttings is brisk. No. 1 new white shirt cuttings are particularly firm. Roofing grades are seasonally active. The imported rag market is showing improvement. New light prints are now offered at from $2.75 to $3.00.

Waste Paper

Quotations in the paper stock market are still rising. Heavy board mill demand has resulted in higher prices for the lower grades. No. 1 mixed paper is now quoted at from 80 to 85 cents. The higher grades are also firm. White envelope cuttings are offered at from $2.65 to $2.85.

Twine

Trading in the local twine market continues active. Demand for the various grades is better than usual at this time of year. Competition is not quite so intense and prices are holding to previously reported levels, without difficulty. The outlook for the future is considered bright.

Business Improves in Miami Valley

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, July 17, 1933.—Indications are multiplying that business is improving throughout this section and particularly in Ohio and Indiana, the border line of which is scarcely 30 miles to the west of Dayton. Naturally, the beer trade started things in this part of Ohio. The same cannot be said of Indiana where drinkers of the legal brew find it difficult to enjoy themselves without restraint. They must sit down, buy a lunch and take their beer by the bottle. In Ohio, all one has to do is to drink to his heart's content—providing he has the cash and is inclined to be bibulous.

Many paper packages have figured in the return of beer. It is almost impossible to trace the improvement but one sage has said that overnight it proved more beneficial than the recent jigsaw puzzle craze, to the paper interests. Even retail buying was stimulated to the extent of the greater consumption of bags, boxes and wrapping papers.

One of the significant developments of the week in Dayton was the announcement that beginning today the National Cash Register Company would adopt a forty-hour week, with a minimum pay of 35 cents an hour for men and $14 a week for women. This arrangement, it was said, would result in the employment of more men and women in both offices and factories. Approximately 5,000 are affected by the ruling which was given by Col. Edward A. Deeds, chairman of the Board of Directors, on his arrival from New York. The company conducts the largest individually-owned printing plant in the world and is a large consumer of register paper and all kinds of book and print papers.

A rosy picture is presented this week by the Associated Press in its survey of industrial employment in Ohio. It showed that relief rolls are steadily but surely being depleted in Toledo, Cleveland, Canton, Columbus, Dayton, Youngstown, Cincinnati, Hamilton, Middletown, Akron and other busy industrial centers. At Canton 11,923 men were at work the past week, putting employment at the highest peak since May 1, 1931. Relative to Dayton, the report says: "There was more work for nearly everybody in Dayton, with that city's largest industries working eight-hour days and five-day weeks, instead of the three to four-day week schedule adhered to a few months ago."

Ranger Cover Sample Book

The Holyoke Card and Paper Company, Springfield, Mass., has just issued its Ranger Cover sample book. Ranger is a durable, coated stock that embosses and prints well. It is stocked in two weights, two sizes, and eight colors. The price is attractive.

During all of the years that Ranger has been on the market it has justified the slogan "Leather Looks, Leather Feel—at the Price of Paper" and consequently has enjoyed continuous popularity.

Sample books will gladly be sent on request.

Miscellaneous Markets

Office of the PAPER TRADE JOURNAL,
Wednesday, July 19, 1933.

BLANC FIXE.—The blanc fixe market is exhibiting a strong undertone. Prices are holding to schedule. The pulp is quoted at from $42.50 to $45.00 per ton, in bulk; while the powder is selling at from 3 to 3½ cents per pound, in barrels, at works.

BLEACHING POWDER.—Steadiness prevails in the bleaching powder market. The contract movement is normal. Prices are maintained at previously quoted levels. Bleaching powder is selling at from $1.75 to $2.00 per 100 pounds, in drums, at works.

CASEIN.—The casein market continues firm. Domestic standard ground is quoted at 12¾ cents and finely ground at 13½ cents per pound. Argentine and standard ground is selling at 13¼ cents and finely ground at 14¼ cents per pound, all in bags, car lot quantities.

CAUSTIC SODA.—Demand for caustic soda is persistent. The contract movement is fairly heavy. Solid caustic soda is still quoted at from $2.55 to $3.00; while the flake and the ground are selling at from $2.95 to $3.00 per 100 pounds, in large drums, at works.

CHINA CLAY.—The china clay market is displaying strength. Prices are holding to schedule. Imported china clay is quoted at from $12 to $17 per ton, ship side; while domestic paper making clay is selling at from $4.50 to $12.00 per ton, at mine.

CHLORINE.—Conditions in the chlorine market are quite satisfactory. Demand is well maintained and prices are holding to schedule, without difficulty. Chlorine is quoted at $1.75 per 100 pounds, in tanks, or multi-unit cars, in ton lots, or over, at works.

ROSIN.—The rosin market again advanced. The grades of gum rosin used in the paper mills are now quoted at $5.40 per 280 pounds, in barrels, at works; while wood rosin is selling at $4.20 per 280 pounds, in barrels, at southern shipping points.

SALT CAKE.—Business in the salt cake market is brisk. Prices are steady to firm. Salt cake is quoted at from $14 to $14.50; chrome salt cake at from $13.50 to $14 per ton, at works; while imported salt cake is selling at from $14 to $14.50 per ton, on dock.

SODA ASH.—The soda ash market continues buoyant. Shipments against contract are moving with regularity. Quotations on soda ash, in car lots, at works, per 100 pounds, are as follows: in bulk, $1.05; in bags, $1.30; and in barrels, $1.43.

STARCH.—Prices in the starch market are rising sharply, in sympathy with the basic grain market. The contract movement is seasonal. Special paper making starch is quoted at $2.84 per 100 pounds, in bags, and at $3.11 per 100 pounds, in barrels, at works.

SULPHATE OF ALUMINA.—Paper mill demand for sulphate of alumina is excellent. Prices continue firm. Commercial grades are quoted at from $1.25 to $1.46; while iron free is selling at from $1.90 to $2.05 per 100 pounds, in barrels, at works.

SULPHUR.—The sulphur market is steady. Sulphur is quoted at $18 per long ton, on orders of 1,000 tons, or over, on yearly contracts; and at $20 per ton on any smaller quantity over that period. On spot and near by car loads, the quotation is $21 per ton.

TALC.—Trading in the talc market is fairly active. Prices are irregular, due to foreign exchange fluctuations. Domestic talc is quoted at from $16 to $18 per ton, in bulk, at eastern mines; while foreign talc is selling at from $20 to $50 per ton, ship side.

Market Quotations

Paper

(F. o. b. Mill)

Ledgers	6.50	@	8.00
Bonds	4.75	@	13.25
Index	6.00	@	12.00
Writings—			
Extra Superfine	6.50	@	15.00
Superfine	6.25	@	14.75
Tub sized	4.50	@	7.00
Engine sized	4.00	@	5.00
Book, Cased—			
S. & S. C.	4.50	@	5.25
M. F.	4.35	@	4.85
Coated and Enamel	5.25	@	9.50
Lithograph	5.10	@	9.50
Tissues—Per Ream—			
White No. 1	.60	@	.80
White No. 2	.55	@	.70
Anti-Tarnish M. G. only	.75	@	.80
Colored	.80	@	1.00
Kraft	.75	@	.80
Manila	.65	@	.70
Manila—			
No. 1 Jute	9.00	@	9.25
No. 2 Jute	7.75	@	8.50
No. 1 Wood	4.00	@	5.25
No. 2 Wood	3.50	@	4.00
Butchers	3.37½	@	—
Fibre Papers—			
No. 1 Fibre	4.25	@	5.50
No. 2 Fibre	4.00	@	4.75
Common Bogus	1.50	@	3.00
Screenings	2.00	@	3.00
Card Middles	4.00	@	5.00
Glassine—			
Bleached, basis 25 lbs., No. 1	.11	@	—
No. 2	.10	@	—
Bleached, basis 20 lbs.	.13	@	—

(Delivered New York)

News, per ton—			
Roll, contract	40.00	@	—
Rolls, spot	40.00	@	—
Sheets	45.00	@	—
Side Runs	25.00	@	—
Kraft—			
No. 1 Domestic	4.50	@	4.75
No. 2 Domestic	3.00	@	3.25
Southern	3.00	@	3.25
Imported	2.75	@	3.50
Boards—per ton—			
News	42.50	@	45.00
Straw	37.50	@	40.00
Chip	40.00	@	42.50
Binders Boards	62.00	@	70.00
Kraft Liner	52.50	@	55.00
Standard 85 Test Jute Liner	35.00	@	37.50
Sgl. Mla. Lt. Chip.	50.00	@	52.50

(F. o. b. Mill)

Wood Pulp Board	70.00	@	80.00

Mechanical Pulp

(On Dock, Atlantic Ports)

No. 1 Imported—			
Moist	24.00	@	26.00
Dry	24.00	@	26.00

(F.o.b. Mill)

No. 1 Domestic and Canadian	18.00	@	26.00

Chemical Pulp

(On Dock, Atlantic Ports)

Sulphite (Imported)—			
Bleached	2.50	@	2.75
Easy Bleaching	1.85	@	2.00
No. 1 strong unbleached	1.85	@	2.00
Mitscherlich Unbleached	1.85	@	2.00
No. 2 Strong unbleached	1.65	@	1.75
No. 1 Kraft	1.75	@	1.85
No. 2 Kraft	1.60	@	1.70
Sulphate—			
Bleached	2.25	@	3.00

(F. o. b. Pulp Mill)

Sulphite (Domestic and Canadian)—			
Bleached	2.75	@	3.00
Easy Bleaching	1.70	@	1.80
News	1.60	@	1.70
Mitscherlich unbleached	2.25	@	2.50
Kraft (Domestic)	1.50	@	2.75
Soda Bleached	2.25	@	—

Domestic Rags

New Rags

(Prices to Mill f. o. b. N. Y.)

Shirt Cuttings—			
New White, No. 1	5.75	@	6.25
Silesias No. 1	4.00	@	4.50
New Unbleached	6.75	@	7.25
New Soft Blacks	3.00	@	3.25
Blue Overall	4.25	@	4.50
Fancy	2.00	@	2.25
Washables	1.75	@	2.00
Mixed Khaki Cuttings	2.50	@	2.75
O. D. Khaki Cuttings	3.13	@	3.38
Men's Corduroy	1.50	@	1.75
New Mixed Blacks	2.50	@	2.75

Old Rags

White, No. 1—			
Repacked	3.75	@	4.00
Miscellaneous	3.00	@	3.50
White, No. 2—			
Repacked	2.00	@	2.50
Miscellaneous	1.75	@	2.00
Thirds and Blues—			
Repacked	1.75	@	2.00
Miscellaneous	1.50	@	1.75
Black Stockings	2.50	@	3.00
Roofing Rags—			
No. 1	.90	@	.95
No. 2	.80	@	.85
No. 3	.75	@	.80
No. 4	.70	@	.75
No. 5A	.65	@	.70

Foreign Rags

New Rags

New Dark Cuttings	1.50	@	1.60
New Mixed Cuttings	1.60	@	1.70
New Light Silesias	3.50	@	3.75
Light Flannelettes	3.25	@	3.50
Unbleached Cuttings	5.50	@	5.75
New White Cuttings	5.00	@	5.50
New Light Oxfords	3.25	@	3.50
New Light Prints	2.75	@	3.00

Old Rags

No. 1 White Linens	6.25	@	6.75
No. 2 White Linens	5.25	@	5.75
No. 3 White Linens	4.25	@	4.00
No. 4 White Linens	2.00	@	2.25
No. 1 White Cotton	3.75	@	4.00
No. 2 White Cotton	3.00	@	3.25
No. 3 White Cotton	2.50	@	2.75
No. 4 White Cotton	1.50	@	1.60
Extra Light Prints	2.00	@	2.25
Ord. Light Prints	1.75	@	1.85
Med. Light Prints	1.55	@	1.65
Dutch Blue Cottons	1.65	@	1.80
French Blue Linens	2.10	@	2.25
German Blue Linens	1.85	@	2.00
German Blue Cottons	1.35	@	1.50
Checks and Blues	1.30	@	1.40
Lindsay Garments	1.10	@	1.15
Dark Cottons	.95	@	1.00
Old Shopperies	.85	@	.90
New Shopperies	.80	@	.85
French Blues	1.50	@	1.65

Old Rope and Bagging

(Prices to Mill f. o. b. N. Y.)

Gunny No. 1—			
Foreign	1.30	@	1.40
Domestic	1.25	@	1.35
Wool Tares, light	1.05	@	1.15
Wool Tares, heavy	1.05	@	1.15
Bright Bagging	1.00	@	1.10
Manila Rope—			
Foreign	2.75	@	3.00
Domestic	2.50	@	2.75
Small Mixed Rope	1.00	@	1.25
New Burlap Cut	1.50	@	1.75
Hessian Jute Threads—			
Foreign	2.60	@	2.75
Domestic	2.80	@	3.00

Old Waste Papers

(F. o. b. New York)

Shavings—			
White Envelope Cuttings	2.65	@	2.85
Ordinary Hard White No. 1	2.40	@	2.50
Hard White No. 2	2.30	@	2.40
Soft White No. 1	2.20	@	2.30
Flat Stock—			
Stitchless	1.05	@	1.15
Overissue Mag	1.05	@	1.15
Solid Flat Book	.95	@	1.05
Crumpled No. 1	.85	@	.90
Solid Book Ledger	1.50	@	1.75
Ledger Stock	1.05	@	1.15
New B. B. Chips	.65	@	.70
Manilas—			
New Env. Cut	1.60	@	1.70
New Cuttings	1.20	@	1.25
Extra No. 1 old	.90	@	1.00
Print	Nominal		
Bogus Wrapper	.70	@	.80
Container	Nominal		
Old Kraft Machine—			
Compressed bales	1.20	@	1.30
News—			
No. 1 White News	1.20	@	1.30
Strictly Overissue	.75	@	.85
Strictly Folded	.80	@	.85
No. 1 Mixed Paper	.80	@	.85

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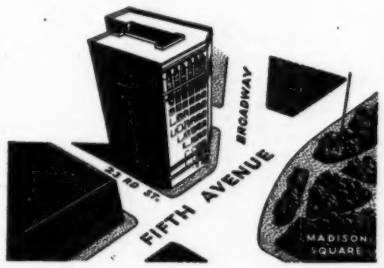

ATTRACTED by the strategic location of The Fifth Avenue Building—at the crossing of Fifth Avenue and Broadway at Madison Square—leaders in the Paper Industry have established their New York showrooms and offices in this famous building. Here are concerns whose names are known the world over as makers of quality paper. To them come buyers, not only from all America, but from all the world—to see and to buy.

Not only is The Fifth Avenue Building recognized as the "Paper Center of America" but under its one roof may be found leaders in many and varied lines—stationery, toys, novelties, housefurnishings, electrical appliances, pottery, glass, china and others. Buyers flock here at all seasons of the year to inspect and place orders from exhibits representing the very latest offerings in their lines.

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Twines
(F. o. b. Mill)

Cotton—			
B. C. 18 basis	.30	@	.32
No. 1	.20	@	.22
No. 2	.19	@	.20
No. 3	.17	@	.18
A. Italian, 18 basis	.36	@	.37
Finished Jute—			
Dark, 18 basis	.18	@	.20
Light, 18 basis	.20	@	.22
Jute Wrapping, 3-6 Ply—			
No. 1	.15½	@	.16½
No. 2	.15	@	.16
Tube Rope—			
4-ply and larger	.09¾	@	.11¾
Fine Tube Rope—			
4-ply	.13¼	@	.14¾
3-ply	.14¼	@	.14¾
2-ply	.15¼	@	.15¾
Paper Makers Twine	.08¾	@	.10¼
Box Twine, 2-3 ply	.12¾	@	.13½
White Hemp	.12¾	@	.15¼
Java Sisal—			
No. 1 Basis	.11½	@	—
No. 2 Basis	.10½	@	—
New Zealand Sisal	.11½	@	—
Sisal Lath Yarn—			
No. 1	.13½	@	.15½
No. 2	.11½	@	.13½
Manila Twine	.24½	@	.29½

CHICAGO

Paper
(F. o. b. Mill)

Rag Bond	.30		.53¼
Water Marked Sulphite Bond	.09		.12
Sulphite Bond	.04		.11
Superfine Writing	.18		.24
No. 1 Fine Writing	.14		.18
No. 2 Fine Writing	.12		.14
No. 3 Fine Writing	.07		.18
No. 1 M. F. Book	.06½		.07¼
No. 2 M. F. Book	.05¼		.06¼
No. 1 S.&S.C. Book	.06¼		.07¼
No. 2 S.&S.C. Book	.05¼		.06½
Coated Book	.07½		.12
Coated Label	.07½		.10
No. 1 Manila	.04¼		.05¼
No. 1 Fibre	.04¼		.05¼
No. 2 Manila	.04½		.04¾
Butcher's Manila	.03¼		.03¾
No. 1 Kraft	3.50		4.50
Southern Kraft	2.62½		—
No. 2 Kraft	2.62½		—
Wood Tag Boards	.04¼		.06¼
Sulphite Screenings	.03		.03¼
Manila Tissue	.07		.07¼
White Tissue	.07¼		.07½

(Delivered Central Territory)

News, per ton—			
Rolls, contract	45.00		—
Sheets	50.00		—
Boards, per ton—			
Plain Chip	37.50	@	—
Solid News	43.50	@	—
Manila Lined Chip	47.50	@	—
Patent coated	55.00	@	—
Container Lined—			
85 Test	60.00	@	65.00
100 Test	60.00	@	70.00

Old Papers
(F. o. b. Chicago)

Shavings—			
No. 1 White Envelope cuttings	1.70	@	1.80
No. 1 Hard White	1.40	@	1.50
No. 1 Soft White	1.20	@	1.30
Ledger & Writings	.80	@	.90
Solid Books	.80	@	.90
Blanks	1.00		1.05
Krafts	.90	@	1.00
New Kraft Cuts	1.20	@	1.30
Manila Env. Cuts	1.25		1.30
Ex. No. 1 Manila	1.00	@	1.05
Print Manila	.60	@	.65
Overissue News	.60	@	.70
Old Newspapers—			
No. 1	.55	@	.65
Mixed Papers—			
No. 1	.50	@	.55
Roofing Stocks—			
No. 1	30.00		—
No. 2	28.00		—

PHILADELPHIA

Paper
(F. o. b. Mill)

Bonds	.04		.40
Ledgers	.06		.40
Writings—			
Superfine	.10		.18
Extra Fine	.15		.26
Fine	.15		.26
Fine, No. 2	.10		.25
Fine No. 3	.05½		.18
Book, M. F.	.04¼		.07
Book, S. S. & C.	.05		.07½
Book, Coated	.06		.16
Coated Lithograph	.06		.11
Label	.07	@	.11
No. 1 Jute Manila	.06	@	.10
Manila Sul., No. 1	.03	@	.06
Manila No. 2	.03	@	.05
No. 1 Kraft	.05¼	@	.06½
No. 2 Kraft	.03¾	@	.05
Southern Kraft	2.75	@	4.00
Common Bogus	.03	@	.04½

(Delivered Philadelphia)

News Print Rolls	46.00	@	55.00
Straw Board	40.00	@	45.00
News Board	37.00	@	45.00
Chip Board	40.00	@	45.00
Wood Pulp Board	70.00	@	85.00
Binder Boards—			
No. 1, per ton	75.00	@	80.00
No. 2, per ton	70.00	@	75.00
Carload lots	65.00	@	70.00
Tarred Felts—			
Regular	52.25		54.25
Slaters (per roll)	.84		.94
Best Tarred, 1-ply (per roll)	1.95		2.10
Best Tarred, 2-ply (per roll)	1.50		1.60
Best Tarred, 3-ply	2.00		2.25

Domestic Rags (New)
(Price to Mill, f. o. b. Phila.)

Shirt Cuttings—			
New White, No. 1.	.03½		.04
New White, No. 2.	.02½		.04
Light Silesias	.02½		.03
Silesias, No. 1	.03		.03½
Black Silesias, soft.	.02½		.03
New Unbleached	.05		.05½
Washable, No. 1	.01½	@	.02
Blue Overall	.03½	@	.04
Cottons—According to grades—			
Washable, No. 2	.02½	@	.03
New Blue	.01½	@	.03
Fancy	.01½	@	.03
New Black Soft	.02	@	.04
New Light Seconds	.01½	@	.02
New Dark Seconds	1.50	@	1.75
Khaki Cuttings—			
No. 1 O.D.	.03	@	.04
No. 2 Mixed	.03	@	.04
Corduroy	.02	@	.03
New Canvas	.03½	@	.04½
New Black Mixed	.02½	@	.03½

Domestic Rags (Old)

White No. 1—			
Repacked	2.50	@	3.50
Miscellaneous	1.75	@	2.25
M. G.	3.00	@	3.75
Thirds and Blues—			
Miscellaneous	1.00	@	1.50
Repacked	1.50	@	2.00
Black Stockings (Export)	2.00	@	3.50
Roofing Stock—			
Foreign No. 1	.50	@	.75
Repacked	.70	@	.85

Bagging
(F. o. b. Phila.)

Gunny, No. 1—			
Foreign	1.25		1.50
Domestic	1.50	@	1.75
Manila Rope	2.00		2.25
Sisal Rope	1.25		1.50
Mixed Rope	1.00		1.10
Scrap Burlaps—			
No. 1	1.25		1.50
No. 2	.80		1.00
Wool Tares, heavy	2.75		—
Mixed Strings	1.15		1.25
No. 1 New Light Burlap	2.25		2.50
New Burlap Cuttings	2.00		2.25

Old Papers
(F. o. b. Phila.)

Shavings—			
No. 1 Hard White	2.10	@	2.20
No. 2 Hard White	1.75	@	1.90
No. 1 Soft White	1.80	@	1.90
No. 2 Soft White	1.10	@	1.15
No. 1 Mixed	.90	@	1.00
No. 2 Mixed	.70	@	.80
Solid Ledger Stock	1.25	@	1.30
Writing Paper	1.10	@	1.20
No. 1 Books, heavy	1.15	@	1.25
No. 2 Books, light	.90	@	1.00
No. 1 New Manila	1.55	@	1.65
No. 1 Old Manila	.90	@	1.00
Print Manila	.80	@	.90
Container Manila	.85	@	.90
Old Kraft	1.20	@	1.25
Common Paper	.60	@	.65
No. 1 Mixed Paper	.70	@	.75
Straw Board Chip	.65	@	.70
Binders Board Chip	.65	@	.70
Corrugated Board	.90	@	.95
Overissue News	.75	@	.80
Old Newspaper	.65	@	.70

BOSTON

Paper
(F. o. b. Mill)

Ledgers—			
Sulphite	.06		.12½
Rag Content	.12		.30
All Rag	.36		.52½
Bonds—			
Sulphite	.05¾		.11½
Rag Content	.12		.30
All Rag	.36		.65
Writings	.06½		.20
Superfines	.11		.31
Book, Super	.06		.09
Book, M. F.	.05½		.08½
Book, Coated	.08½		.18
Coated Litho	.09		.12
Label	.09½		.15
Jute Manila No. 1	.11		.13
Manila, Sul. No. 1	.04¾		.06½
Manila, Sul. No. 2	.03¾		.04½
No. 1 Kraft	—		.04¾
No. 2 Kraft	.03	@	—

(F. o. b. Boston)

Southern Kraft	.03	@	—

(F. o. b. destination in carload lots, f. o. b. mill in less than carload lots.)

Common Bogus	.02		.02¾

(Delivered New England points)

News Print, rolls	44.50		—
Straw Board, rolls	.009		35.00
Straw Board in Sheets, basis 35s to 70s	—		40.00
Filled News Board	42.50	@	47.50
Chip Board	40.00	@	45.00
Chip Board (Creasing)	—	@	42.50
Single Manila Lined Chip	50.00	@	60.00
Single White, Patent Coated News Board—Bender	60.00	@	70.00
Wood Pulp Board	70.00		75.00
Binder Boards	62.00		75.00

Old Papers
(F. o. b. Boston)

Shavings—			
No. 1 Soft White	1.90	@	2.00
No. 1 Old Manila	.50	@	.60
No. 1 Mixed	.90	@	1.00
No. 2 Mixed	.75	@	.80
Solid Ledger Books	1.40	@	1.50
Overissue Ledger Stock	1.15		1.30
Mixed Ledgers	.85	@	1.00
No. 1 Books, heavy	1.00	@	1.10
No. 1 Books, light	.80	@	1.00
Crumpled Stitchless Book Stock	.50		.60
Manila Env. Cuttings	1.25		1.30
No. 1 Old Manila	.70	@	.80
White Blank News	1.15	@	1.20
No. 1 Kraft	1.10	@	1.20
Manila	.90	@	1.05
No. 1 Mixed Papers	.57½	@	.62½
Print Manila	.65	@	.80
Overissue News	.80	@	.90
Old Newspapers	.70	@	.75
Box Board Chips	.55	@	.65
Corrugated Boxes	.62½	@	.85
Screening wrappers	.75	@	.85

Bagging
(F. o. b. Boston)

Manila Rope—			
Foreign	2.75	@	—
Domestic	2.50	@	—
Transmission Rope	1.50	@	—
Mixed Strings	.85	@	—
Jute Rope	1.00	@	1.15
Jute Carpet Threads	.65	@	.70
Gunny No. 1—			
Foreign	1.35	@	1.45
Domestic	1.25	@	—
Bleachery Burlap	3.00	@	3.25
Scrap Burlap	1.00	@	1.10
No. 1 Scrap Burlap	1.10	@	1.20
Scrap Sisal	.85	@	1.10
Scrap Sisal for shredding	1.10	@	—
Wool Tares, heavy	1.10	@	1.25
New Burlap Cutting	.95	@	1.00
Australian Wool Pouches	2.50	@	—
Heavy Baling Bagging	1.25	@	1.50
Paper Mill Bagging	.85	@	.95
Bagging No. 2	.50	@	.60
No. 1 Burlap	1.75	@	2.25

Domestic Rags (New)
(F. o. b. Boston)

Shirt Cuttings—			
New Light Prints	.02	@	.02¼
New White No. 1	.05½	@	.06
New White No. 2	.04½	@	.05
Silesias No. 1	.04	@	—
New Black Silesias	.02½	@	.03
New Unbleached	.06	@	—
Fancy	—		.02½
Washable	.02¼	@	—
Cottons—According to grades—			
Blue Overalls	—		.03¾
New Black, soft	.04	@	.04½
Khaki Cuttings	.03	@	.03¼
O. D. Khaki	.03	@	.03¼
Corduroy	.01¾	@	.02
New Canvas	—		.05
B.V.D. Cuttings	.04	@	.04¼

Domestic Rags (Old)
(F. o. b. Boston)

Canvas	.04½		—
White No. 1—			
Repacked	3.00		3.50
Miscellaneous	2.00	@	—
White No. 2—			
Repacked	.01½	@	.01¾
Miscellaneous	.01½	@	.01¾
Twos and Blues	1.25	@	1.50
Thirds and Blues			
Repacked	1.10	@	1.25
Miscellaneous	.85	@	.90
Black Stockings	2.25	@	2.50
Roofing Stock			
No. 1	1.10	@	—
No. 2	.85	@	.90
No. 3	.50	@	.55

Foreign Rags
(F. o. b. Boston)

Dark Cottons	1.00	@	1.10
New White Shirt Cuttings	.05	@	.06
Dutch Blues	2.00	@	2.50
New Checks & Blues	2.50	@	3.00
Old Fustians	1.25	@	1.55
Old Linsey Garments	1.05	@	1.25

TORONTO

Paper
(F. o. b. Mill)

Bond—			
No. 1 Sulphite	.09¾		—
No. 2 Sulphite	.08	@	—
No. 1 Colored	.10¼	@	—
No. 2 Colored	.08½		.10½
Ledgers (sulphite)			
Ledgers, No. 1	.34½		—
Ledgers, No. 2	.25½		—
Writing	.09		.09½
Book—			
No. 1 M. F. (Carloads)	6.20		—
No. 3 M. F. (Carloads)	5.70		—
No. 4 M. F. (carloads)	4.75		—
No. 1 S. C. (carloads)	6.65		—
No. 3 S. C. (carloads)	6.20		—
No. 4 S. C. (carloads)	5.20		—
No. 1 Coated and Litho	12.00		—
No. 2 Coated and Litho	10.50		—
No. 3 Coated and Litho	9.50		—
Coated tinted	14.00		—
Wrappings—			
Rag Brown	4.25		—
White Wrap	2.00		—
"B" Manila	4.75		—
No. 1 Manila	5.25		—
Fiber	5.25		—
Kraft, M. F.	5.75		—
Kraft No. 2	5.25		—

(F.O.B. Cars Toronto)

News, per ton—			
Rolls (contract)	45.50		—
Sheets	50.50		—

Pulp
(F. o. b. Mill)

Ground Wood	18.00		20.00
Sulphite easy bleaching	40.00		—
Sulphite, news grade	38.00		—
Sulphite, bleached	45.00		50.00
Sulphate	50.00		—

Old Waste Paper
(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut	1.80	@	2.00
Soft White	1.40	@	1.80
White Blk. News	1.25	@	1.50
Book and Ledger—			
Flat Magazine and Book Stock (old)	.90	@	1.00
Light and Crumpled Book Stock	.80	@	.90
Ledgers and Writings	1.00	@	1.05
Manilas—			
New Manila Cut	1.25	@	1.50
Printed Manilas	.55	@	.80
Kraft	1.25	@	1.50
News and Scrap—			
Strictly Overissue	.70	@	—
Strictly Folded	.60	@	—
No. 1 Mixed Paper	.55	@	—

Domestic Rags
(Price to mills, f. o. b. Toronto)

No. 1 White Shirt Cuttings	.04¼		.04½
Fancy Shirt Cuttings	.02¼		.02½